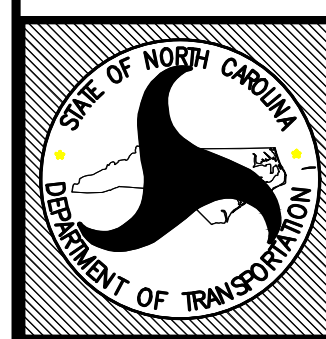


Corridor Enhancements & Aesthetics
NC 213- Mars Hill, NC

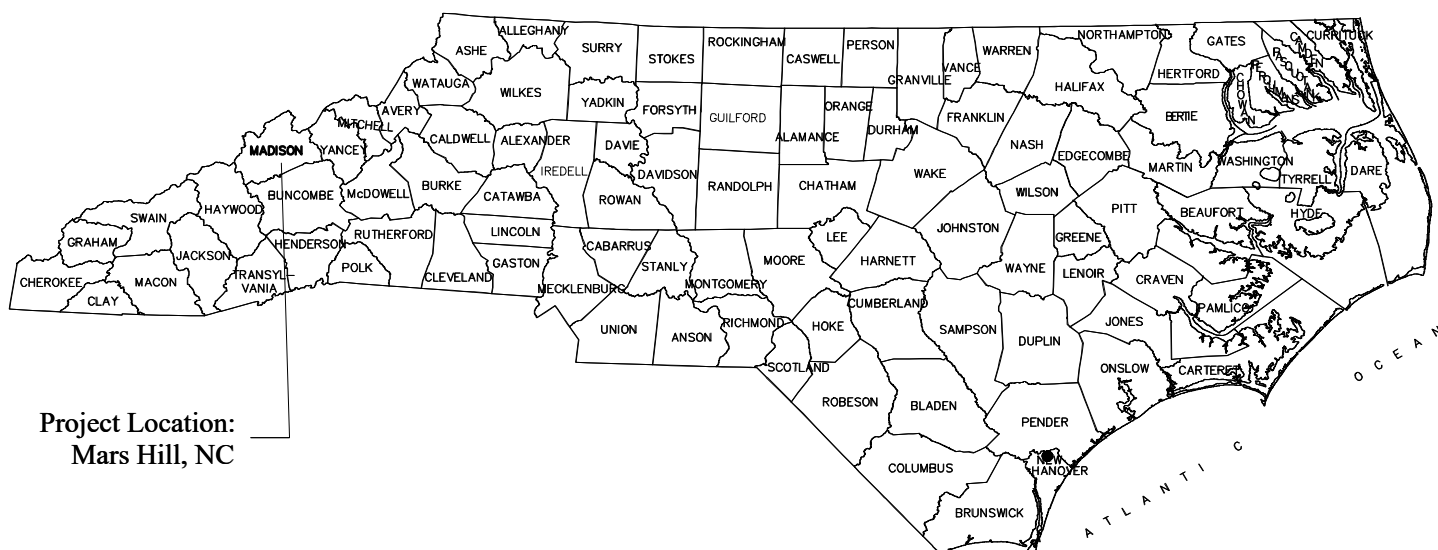


PROJECT: STIP: ER-5600MD

PROJECT: STIP: ER-5600MD

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROPOSED ROADSIDE ENVIRONMENTAL SUSTAINABLE DESIGN & AESTHETICS PROJECT



CONVENTIONAL SYMBOLS

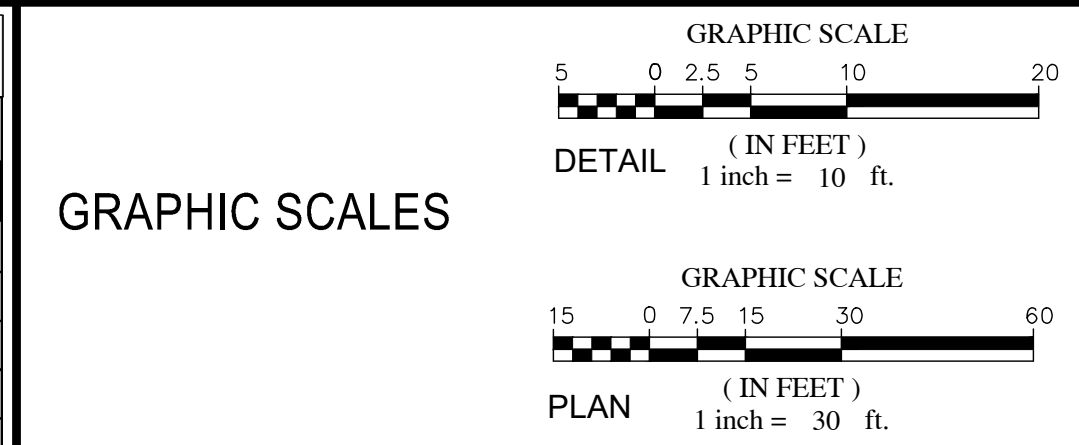
County Line	---
City or Town Line	---
Exist. Right of Way Line Marker	△
Prop. Right of Way Line Marker (By Others)	▲
Prop Right of Way Line Marker (By Contract)	▲
Exist. Control of Access Line	⊙
Prop. Control of Access Line	⊙
Property Line	—E—E—E—
Easement Line	—E—E—E—
Slope Stake Line	—+—+—+—
Exist. Fence	—+—+—+—
Prop. Woven Wire Fence	—+—+—+—
Prop. Chain Link Fence	—+—+—+—
Exist. Road	—+—+—+—
Prop. Road	—+—+—+—
Guardrail	—+—+—+—
Survey Line	—+—+—+—
Denotes Line Equality	—+—+—+—
Bridge	—+—+—+—
Culvert	—+—+—+—
Railroad	—+—+—+—
Woods	—+—+—+—
Exist. Telephone Pole	—+—+—+—
Prop. Telephone Pole	—+—+—+—
Tower Pole and Line	—+—+—+—
Exist. Power Pole	—+—+—+—
Prop. Power Pole	—+—+—+—
Sanitary Sewer Line	—+—+—+—
Water Line	—+—+—+—
Gas Line	—+—+—+—
Picnic Shelter	—+—+—+—
Regeneration	—+—+—+—
Reforestation	—+—+—+—
Large Deciduous Tree	—+—+—+—
Evergreen Tree	—+—+—+—
Small or Flowering Tree	—+—+—+—
Shrubs	—+—+—+—
Planting Bed	—+—+—+—

Summary of Quantities

PLANTING SCHEDULE

TREES								
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	HT	EVERGREEN	COMMENTS
16	CH	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3/4" CAL	B&B	5' MIN		FULL
15	CCB	CERCIS CANADENSIS 'BLACK PEARL'	BLACK PEARL' EASTERN REDBUD	3/4" CAL	B&B	5' MIN		FULL
8	CCO	CERCIS CANADENSIS 'OKLAHOMA'	OKLAHOMA REDBUD	3/4" CAL	B&B	5' MIN		FULL
15	CF	CORNUS FLORIDA 'CHEROKEE PRINCESS'	CHEROKEE PRINCESS FLOWERING DOGWOOD	3/4" CAL	B&B	5' MIN		FULL
8	IO	ILEX OPACA	AMERICAN HOLLY	3/4" CAL	B&B	5' MIN	X	FULL
11	MG	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	1-1/2" CAL	B&B	8' MIN	X	FULL
15	MGK	MAGNOLIA GRANDIFLORA 'KAY PARRIS'	KAY PARRIS MAGNOLIA	3/4" CAL	B&B	5' MIN	X	FULL
12	TG	THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	3/4" CAL	B&B	5' MIN	X	FULL
17	QS	QUERCUS SHUMARDII	SHUMARD OAK	2" CAL	B&B	10' MIN		FULL
SHRUBS								
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	HT	EVERGREEN	COMMENTS
13	BD	BUDDLEJA DAVIDII 'PUGSTER BLUE'	PUGSTER BLUE BUTTERFLY BUSH	18"-24"	#3 CONT			FULL
17	EA	EUONYMUS ALATA 'COMPACTA'	COMPACTA BURNING BUSH	18"-24"	#3 CONT	24"		FULL
6	HV	HAMAMELIS VIRGINIANA	AMERICAN WITCHHAZEL	18"-24"	#3 CONT	24"		FULL
7	HA	HYDRANGEA MACROPHYLLA 'MATHILDA GUTGES'	MATHILDA GUTGES BIGLEAF HYDRANGEA	18"-24"	#3 CONT	24"		FULL
43	IVS	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	18"-24"	#3 CONT	24"		FULL
87	KL	KALMIA LATIFOLIA	MOUNTAIN LAUREL	18"-24"	#1 CONT	16"	X	FULL
11	LG	LINNAEA X GRANDIFLORA 'HOPLEYS'	DWARF ABELIA	15"-18"	#3 CONT	18"		FULL
50	ND	NANDINA DOMESTICA 'FLIRT'	FLIRT NANDINA	15"-18"	#3 CONT	18"	X	FULL
PERENNIALS								
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	HT	EVERGREEN	COMMENTS
589	NB	NARCISSUS 'BRITISH GAMBLE'	BRITISH GAMBLE DAFFODIL	BULB				12" O.C.
319	HG	HEMEROCALLIS 'SPARKLING ORANGE'	SPARKLING ORANGE DAYLILY	3 FAN	#1 CONT			2' O.C.
53	PS	PHLOX SUBULATA	CREeping PHLOX	4" min.	QT			2' O.C.
GRASSES & SEDGES								
QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	HT	EVERGREEN	COMMENTS
35	PV	PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCHGRASS		#1 CONT			
UNIT OTHER ITEMS								
QTY.	UNIT	OTHER ITEMS	SIZE	ROOT	HT	EVERGREEN	COMMENTS	
250	CY	TOPSOIL						
260	CY	MULCH						
30	CY	RIVER ROCK						
220	SF	SEGMENTAL GRAVITY RETAINING WALL						
14	EA	SEGMENTAL GRAVITY COLUMN						
150	LF	2 RAIL VINYL FENCE						
12	EA	TREE PRUNING						
25	EA	SELECTIVE TREE REMOVAL						
1	AC	SUPPLEMENTAL CLEARING AND GRUBBING						
0.3	AC	APPROXIMATE LANDSCAPE AREA TO BE GRADED						
12	EA	ESTABLISHMENT PERIOD						

T.I.P. #	WBS #	SHEET #	SHEET TOTAL
ER-5600MD	46305.3.80	L-1	15
FED. PROJ. #	DESCRIPTION	DIVISION	
0026021	ENHANCEMENT	13	



Designed By:	
REVISIONS	
DATE	DESCRIPTION

COVER SHEET, SUMMARY OF QUAN.....L1
 LANDSCAPE NOTES.....L2
 LANDSCAPE DETAILS.....L3
 LANDSCAPE DETAILS.....L4
 LANDSCAPE DETAILS.....L5
 LANDSCAPE PLAN - KEY MAP.....L6
 LANDSCAPE PLAN.....L7
 LANDSCAPE PLAN.....L8
 LANDSCAPE PLAN.....L9
 LANDSCAPE PLAN.....L10
 LANDSCAPE PLAN.....L11
 LANDSCAPE PLAN.....L12
 LANDSCAPE PLAN.....L13
 LANDSCAPE PLAN.....L14
 LANDSCAPE PLAN.....L15

STATE OF
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

LOCATION: I-26 & NC 213, MARS HILL, NC

TYPE of WORK: LANDSCAPE ENHANCEMENTS

COUNTY: MADISON

PREPARED IN THE OFFICE OF:

SUMMIT
DESIGN AND ENGINEERING SERVICES

State License #: P-0339
 320 Executive Court
 Hillsborough, NC 27278
 Voice: (919) 732-3883 Fax: (919) 732-6676
 www.summitde.com

2024 STANDARD SPECIFICATIONS

Landscape General Notes:

Part 1 - General

Work Included

The scope of the work for the Contractor for this project shall include the provision of all labor, materials, and equipment required to complete all parts associated with the landscape construction as shown on the drawings or noted herein. The Contractor is responsible for coordinating with the General Contractor reasonable access to power and potable water sources as required.

Quality Assurance

General: All plant material shall be installed in a workman like manner using accepted nursery practices and standards, and shall comply with ANSI Z60.1-2014 or most current standard.

Permits: Landscape Contractor shall be responsible for acquiring all permits necessary for construction. The Landscape Contractor shall read all permits and ensure that construction complies with the acquired permits.

Certificates: All materials whose transportation requires inspection and/or certification by any governmental agency shall be accompanied by copies of certification or inspection which shall be given to a selected representative at the site at the time of delivery.

Soil PH: Installer to check existing soil and any imported topsoil and amendments for PH levels confirm that amended plant beds PH levels are within 5.8-7.0. Amend soil as needed to bring levels within this range prior to planting.

Plant Schedules: Quantities indicated on the drawings are provided for the benefit of the Landscape Contractor. Landscape Contractor shall be responsible for verifying quantities and notifying Landscape Architect of any discrepancies prior to the start of planting. Commencement of planting work indicates that quantities have been accepted by the Landscape Contractor and Landscape Contractor accepts liability for any later discrepancy.

Dimensions for plant calipers, heights, and spread specified on the material schedule/plant list are general guides for the minimum desired size for each plant. At a minimum, all plant materials shall comply with the latest edition of the publication ANSI Z60.1-2014, American Standards for Nursery Stock published by the American Association of Nurserymen. The Landscape Architect or other Owners Representative retains the right to reject any plants not meeting these requirements.

Delivery, Storage, and Handling

Packaged Materials: Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored on site.

Trees, Shrubs, Ornamental Grasses, & Transplanted Trees: Provide freshly dug trees and shrubs. Do not prune prior to delivery. Do not bend or bend-tie trees or shrubs in such a manner as to damage bark, branches, or destroy the plants' natural shape. All trees, shrubs, & ground covers must be delivered in a completely lapped and covered vehicle, or the entire load will be refused. Immediately after unloading trees are to be set upright and never placed laying down. Always lift and move trees by the strapping on its root ball or by using a chain cradle on the root ball for larger root balls.

Sod: Perform sod installation after final grading, planting, and all other work affecting the ground surface has been completed or as approved by the Landscape Architect. Do not install sod that has objectional grasses and broadleaf weeds, roots of trees/shrubs, stones, thatch, or other objectionable materials such as nematodes, soil-born insects, or is showing signs of disease. Install sod within a period of 24 hours unless a suitable preservation method is approved by Landscape Architect prior to delivery.

Seed: Seed bags or containers shall be cared for in a manner that will be protected from damage by heat, moisture, rodents, and other issues.

Project/Site Conditions

Landscape Contractor to determine the location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate as needed to avoid damage. Maintain grade stakes set by others until removal is agreed upon by General Contractor and other parties.

Plant new trees and shrubs after final grades are established and prior to planting of lawns unless agreed upon by Landscape Architect. If the planting of trees and shrubs occurs after lawn work, protect these areas and repair any damage to lawns or grading that result.

Sequencing & Scheduling

Landscape Construction Sequence:

1. Visit site after General Contractor's authorization to begin planting and accept/reject condition of the project site prior to any planting.
2. Stake plant beds and till in fertilizer, pre-emergence herbicides, topsoil, and soil conditioner per specifications to the whole bed.
3. Transport all plants to site covered. Any plants damaged during or prior to shipping to the site should not be accepted.
4. Contact NCDOT Engineer or Landscape Architect for approval/denial of all plant beds and plant stock prior to installation.
5. Proceed in laying out plant material per the landscape plans. Contact Landscape Architect for staking approval if noted on plans.
6. Contact Landscape Architect upon completion of work for review.
7. Make necessary adjustments per NCDOT Engineer or Landscape Architect's Landscape Punch for approval. Landscape Contractor is responsible for contacting the General Contractor to set a meeting to review the punch list items.
8. Landscape Contractor to maintain all plant material according to the specifications and warranty noted herein. Landscape Contractor is responsible for watering material as needed during warmer months or times of inadequate rainfall if irrigation system is not installed.
9. Immediately remove/replace any dead or dying plants during the warranty period as noted herein. (See Warranty notes)

Alternatives

Plant substitutions will not be considered unless it can be reasonably demonstrated that material specified is or shall be unavailable within 300 miles of the project site at the time of installation. Landscape Architect shall authorize the nearest equivalent obtainable size/variety of plant having some essential characteristics with equitable adjustment of contract price. The unit price of a substituted item shall not exceed the bid item being replaced. All submittal requests shall be made in writing to General Contractor and Landscape Architect.

Warranty

Installer to guarantee trees/shrubs/ornamental grasses/lawn/grass for a period of one year after the date of acceptance (date to be agreed upon by Installer, Owner, and Landscape Architect) against defects including death and unsatisfactory growth, except for defects resulting from neglect by owner, abuse/damage by others, or unusual circumstances/accidents which are beyond landscape installer's control. If plant material is to be installed prior to the completion of all exterior work (painting, gutter install, windows, etc.) it is recommended for Installer to discuss with General Contractor who would be responsible for replacement if continued construction by other trades damage the installed plants.

Installer to remove trees, shrubs, ornamental grasses, or other plants found to be dead or in an unhealthy condition during the warranty period as soon as possible. Replacements should be installed before the end of the next growth season (Spring or Fall).

Extended Warranty: If more than 25% of trees and woody shrubs are in need of removal and replacement over the ONE (1) year warranty, Owner or Landscape Architect may advise to extend the warranty period for a full growing season for the entire site.

At the request of the Owner, Landscape Architect may conduct another inspection at the end of the extended warranty period, if any, to determine the acceptance/rejection of the site plant material. Only one replacement will be required at the end of the ONE (1) year guarantee period except for losses/replacements due to failure to comply with specified requirements listed herein.

Part 2 - Products

Acceptable Manufacturers

All plant material must be "nursery grown" and any plant material collected from naturalized areas will be rejected. Trees and shrubs should be grown in a recognized nursery in accordance with good horticultural practice. Provide healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions, or disfigurement.

Materials

Fertilizer:

Balled and Burlapped Plants: Plants designated "B&B" in the plant list shall be balled & burlapped. They shall be dug with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Ball shall be firmly wrapped with burlap or similar material and bound with twine or cord. Tree ball shall have a diameter in feet equal to 10' for each caliper inch of tree trunk measured 6" above ground.

Grass Seed: Each of the species or varieties of seed shall be furnished and delivered in separate labeled bags. See **Delivery, Storage, and Handling - Seed.** All quantities of seed specified shall be fore pure live seed. All seed mixes shall be free of any species deemed invasive by the state or municipality in which the mix is going to be installed.

Lime: To be used as necessary to adjust soil pH levels and/or for specified plants. Lime should be ground agricultural limestone containing not less than eighty-five percent (85%) of calcium and magnesium carbonates. Agricultural ground limestone suitable for application by a fertilizer spreader shall conform to the following gradation:

Sieve designation	Min. Percent Passing (by weight)
# 10	100 %
# 20	90 %
# 100	50 %

Pelletized limestone may be used subject to approval by Landscape Architect. Lime shall be applied at rates indicated by soil tests and worked into the topsoil to a uniform depth of 2" (two inches).

Mulch: Double shredded hardwood mulch or approved equivalent, applied at a minimum of 4" to all planting beds, tree mulch rings, and other disturbed areas that are not labeled "lawn" or "sod". Plant beds within 10' of entry doors to be mulched with mini-pine bark nuggets.

Pre-emergence Herbicide: Landscape Contractor to apply a pre-emergence herbicide in all plant beds prior to final mulch installation. Install per manufacturers specifications and recommended rates.

Rock: Rock to be installed in locations called out on the landscape or civil plans and per the landscape details. All rock on site to be sourced from the same location. All areas of rock are to be laid so overlapping stones screen views of any geo-textile below and are not to be placed over inlets.

Sod: All sod to be sourced from the same location. See Delivery, Storage, and Handling - Sod and Sod Install Preparation Notes.

Soil Conditioner: Soil Conditioner shall be small pine bark particles of 3/8" or less, provided in prepackaged bags or approved bulk delivery.

Tree Staking: All trees 2" caliper or greater shall be staked and guyed per the landscape details. Tree stakes to be a treated wooden stake. Guy wires to be no. 12 gauge galvanized wire and should not touch the trees trunk or branches. Wire should be threaded through reinforced rubber hose where touching the tree.

Topsoil: Topsoil to be natural, fertile, agricultural soil possessing characteristics of representative productive soils in the vicinity; it should be uniform composition throughout without admixture of subsoil, be free of stones, lumps, live plants and their roots, sticks and other extraneous matter 2" or more in size (measured in any direction) which might hinder plant growth. Topsoil should not be used while in a frozen or muddy condition.

Water: To be furnished by owner, for temporary or permanent irrigation and fit for plant intake.

Part 3 - Execution

Preparation:

General Contractor to use only pre-qualified Landscape Contractors for landscape and irrigation system install.

Landscape Contractor to confirm any phasing of planting install prior to **Before beginning work:**

Fine grade all grass and planting areas disturbed during construction such that finish grade is smooth and free of depressions. Remove from site all temporary seeding/stabilization, stones, gravel, and all extraneous debris including roots and limbs prior to sodding/seeding. When fine grading, insure that positive drainage is occurring to established drain inlets in such a manner that there is no puddling or ponding. Till and amend all plant beds as required in specifications. Apply pre-emergence herbicides per manufacturer's specifications in all plant beds prior to any planting.

Bring to the attention of NCDOT Engineer or Landscape Architect any debris of poor soils remaining in parking lot islands after general construction prior to planting. Verify all underground utilities prior to any land disturbing by Landscape Contractor. Utilities shown on plans are for reference only and may not be all inclusive. See General Contractor for as-built drawings for all underground utilities.

Protect all existing structures (i.e., Curb & gutter, pavement, drainage inlets, etc.) during installation of trees and shrubs in 3 gallon containers or larger. Final topsoil/planting mix shall have an acidity range of pH 5.5-7.0 and be free or rocks, sticks or construction debris.

Installation

Landscape Contractor to follow Landscape Construction Sequence, noted in "Part 1 - General."

Obtain authorization prior to any changes of plant location due to utilities or other factors.

Field Quality Control

Insure all trees of save variety match in shape and size where they are to be installed in groups, rows, or street trees.

Prior to seeding, Landscape Contractor to verify that all trenching and other land disturbing activities with the areas to be seeded have been completed. If not, Landscape Contractor to seed to within 3" of these areas and return once the activities are completed to finish seeding. It is advised that General Contractor and Landscape Contractor review who is responsible for returning said disturbing activity to final grade to achieve an acceptable grass stand.

Adjusting and Cleaning

When establishing turf, the licensed contractor shall:

Notify the owner or the construction manager whether there is adequate time to establish the specified turf from seed within the construction schedule and prior to finish of the job;

Prior to lawn installation, loosen soil to a minimum depth of three inches;

Confirm that all lawn seed meets the standards of the NC Seed Law of 1963, as set forth in G.S. 106, Art. 31;

Evenly distribute seed;

Apply seed at manufacturer's recommended rates;

Roll or rake after seeding to insure good soil contact;

Install sod within 36 hours of harvesting unless weather conditions or turf types dictate a shorter timeframe;

Lay sod strips in a staggered pattern, horizontal to slopes and with tight seams;

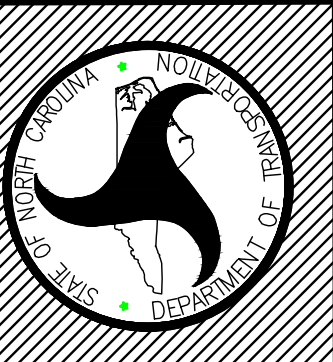
Roll sod after installation to provide good soil contact;

Distribute sprigs evenly;

Insure that sprigs and sod plugs are in good contact with the soil;

Water lawn areas after installation and in accordance with the needs of the lawn; and

Notify client of his or her responsibility to water turf following installation.



Plans Drawn By:

C. KENNEDY

Scale

AS NOTED

Date

06 / 12 / 24

Sheet Description

PLANTING NOTES

Project #

19-0120

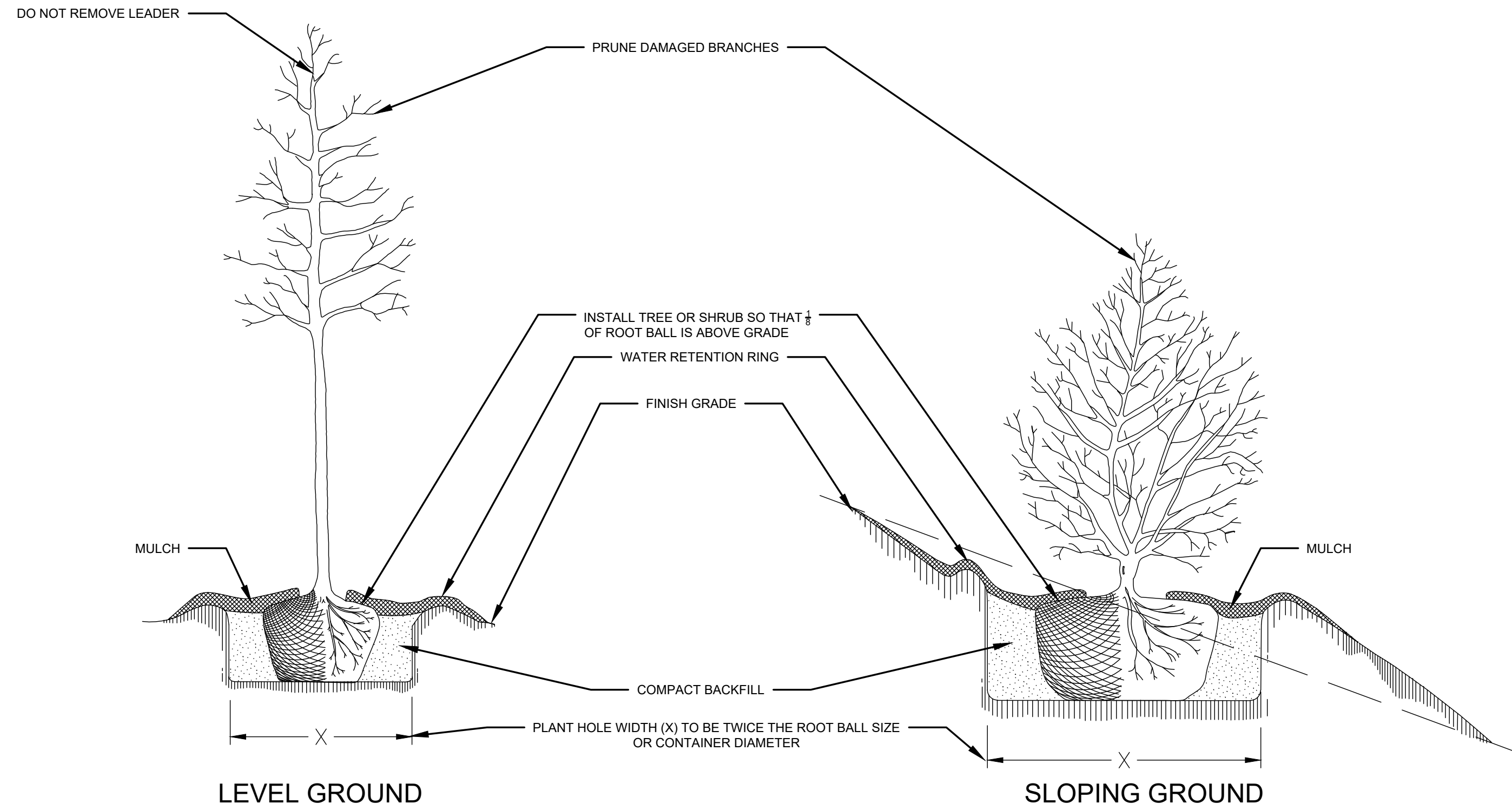
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19-0120_D

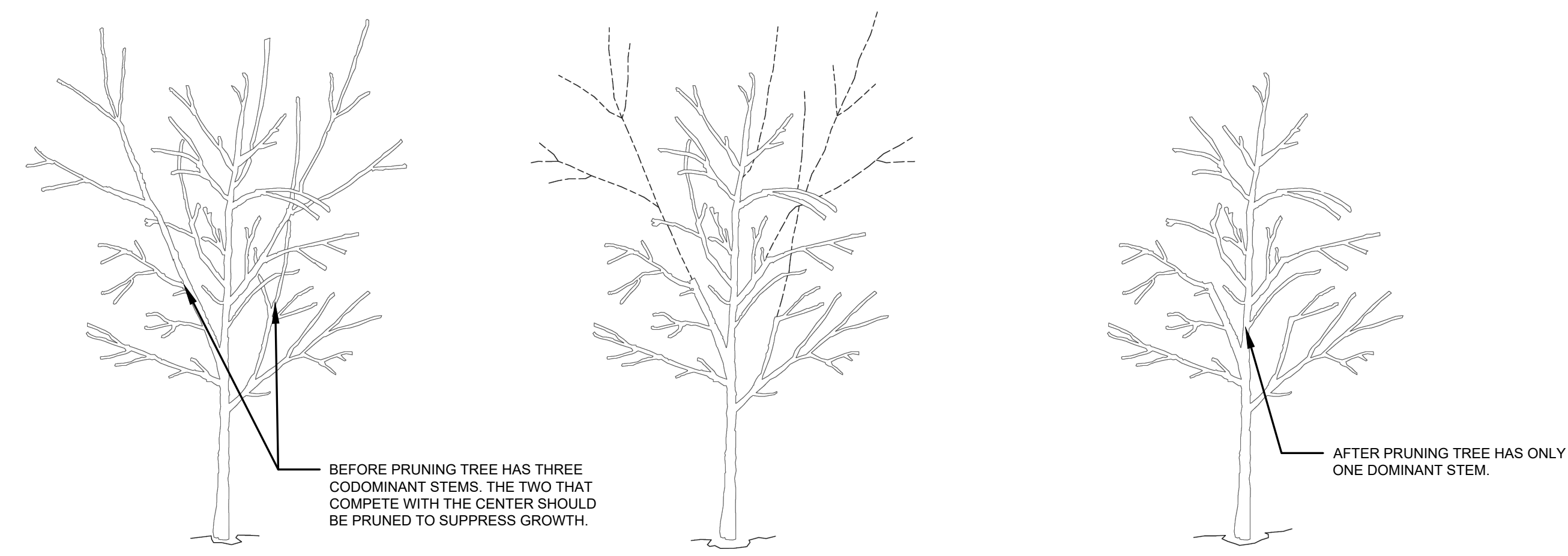
Sheet #

L-2

NCDOT STANDARDS AND SPECIFICATIONS TAKE PRECEDENT OVER THESE NOTES.

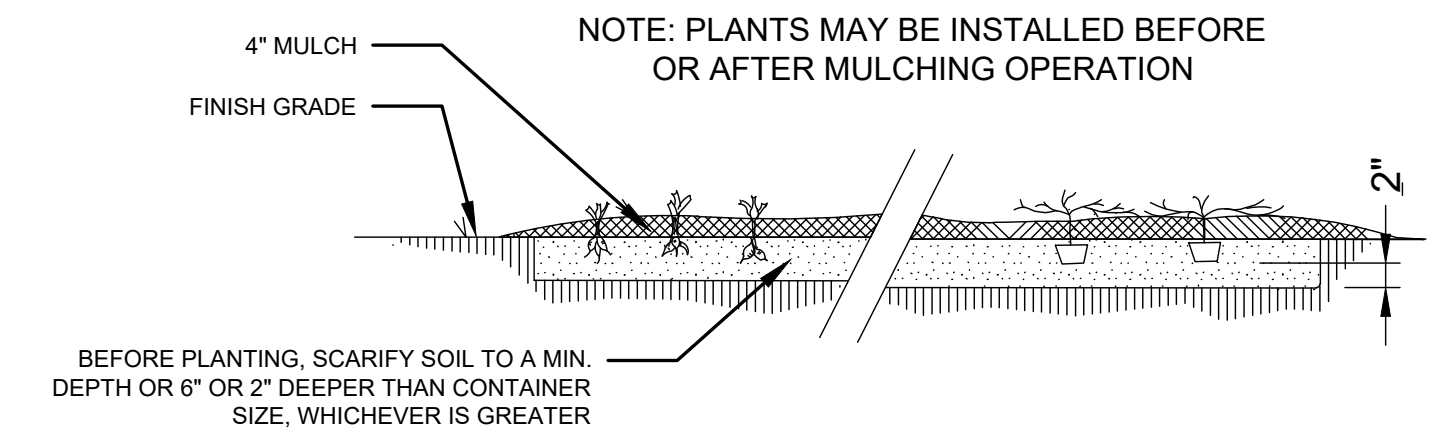


1 TREE OR SHRUB PLANTING DETAIL - LEVEL & SLOPING GROUND
NTS

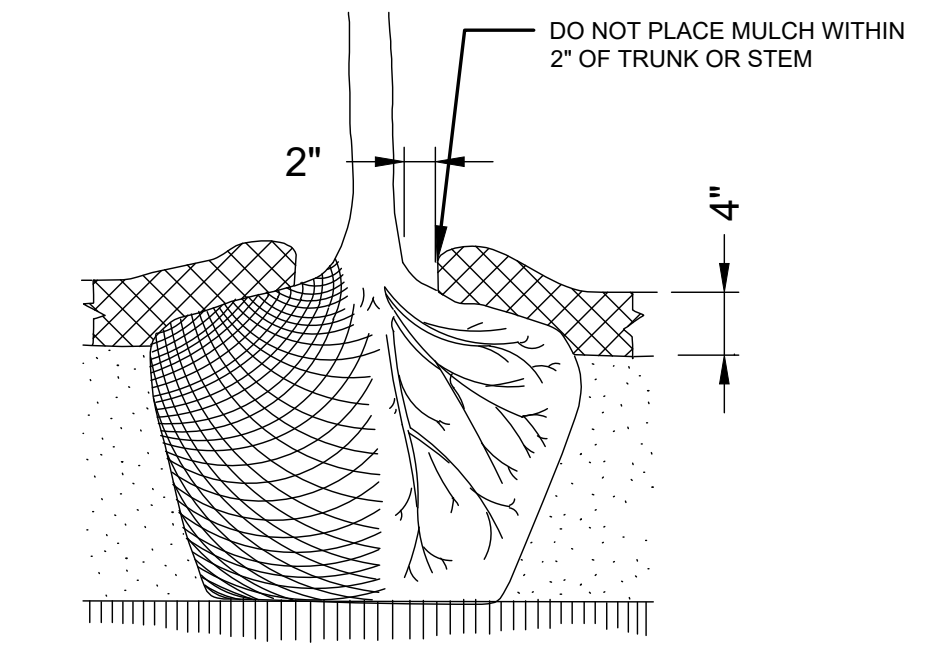


3 PRUNING FOR SINGLE TRUNK TREE
NTS

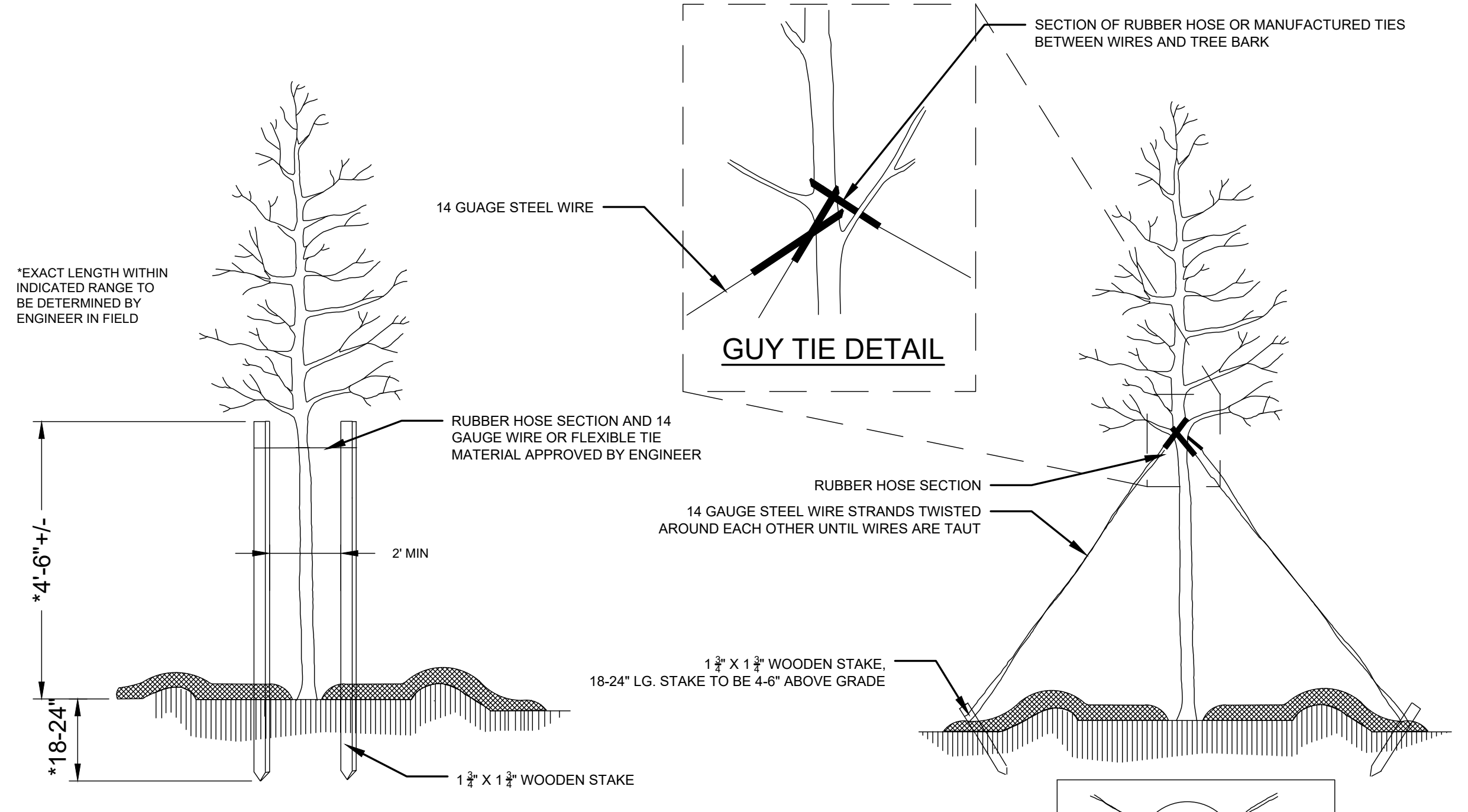
NOTE: PRUNING SHOULD BE ASSESSED AND EXECUTED BY LICENSED ARBORIST. SIGHT TRIANGLE VISIBILITY MUST BE PRIORITIZED. IF HEALTH OF TREE IS POTENTIALLY FROM PRUNING, COORDINATE WITH OWNER TO CONSIDER REMOVAL.



4 GROUND COVER / BEDDING PLANT DETAIL
NTS

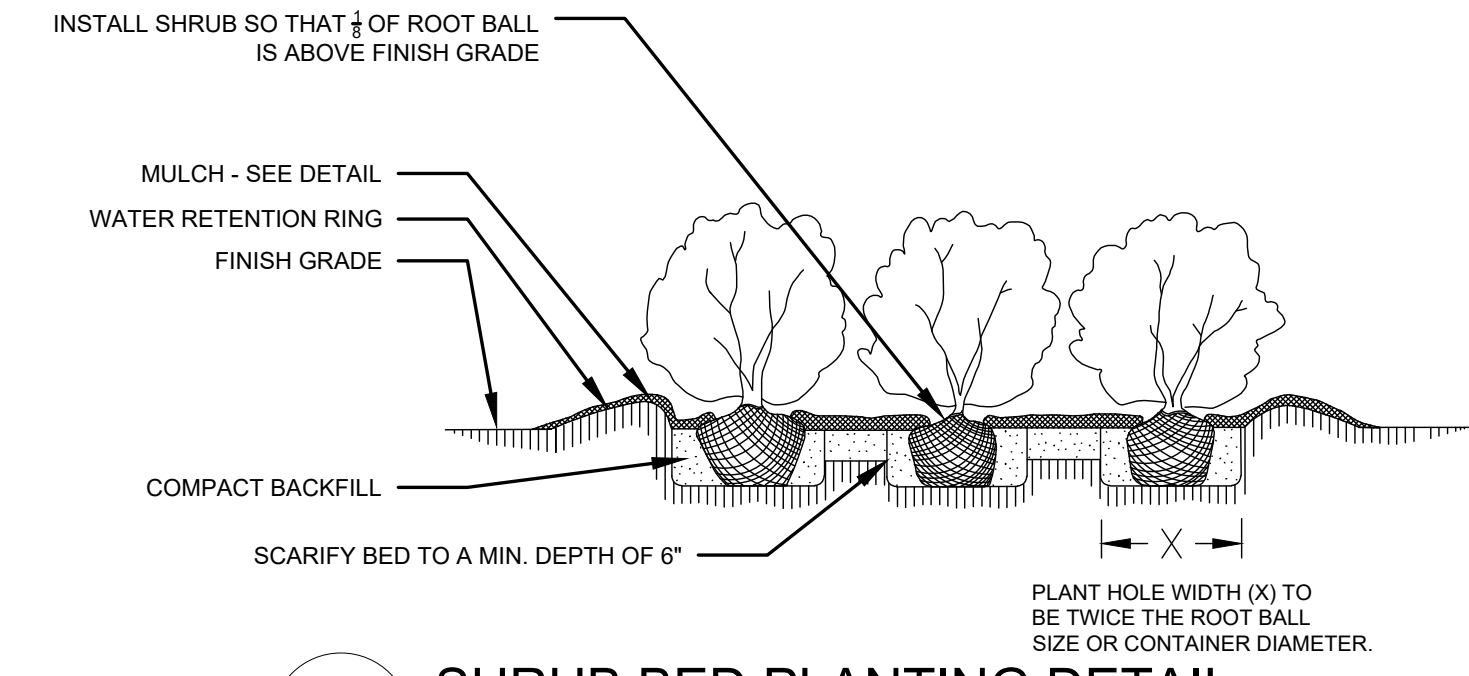


7 MULCH DETAIL
NTS



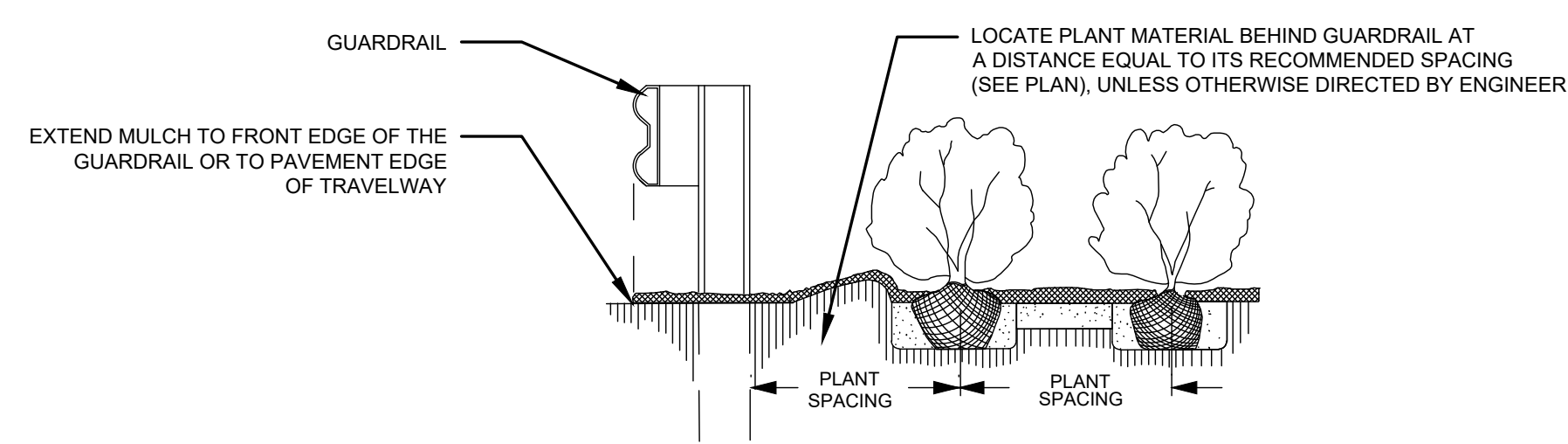
2 STAKING & GUYING DETAIL
NTS

STAKING DETAIL TREES 10' OR LARGER
USE AS DIRECTED BY FIELD ENGINEER

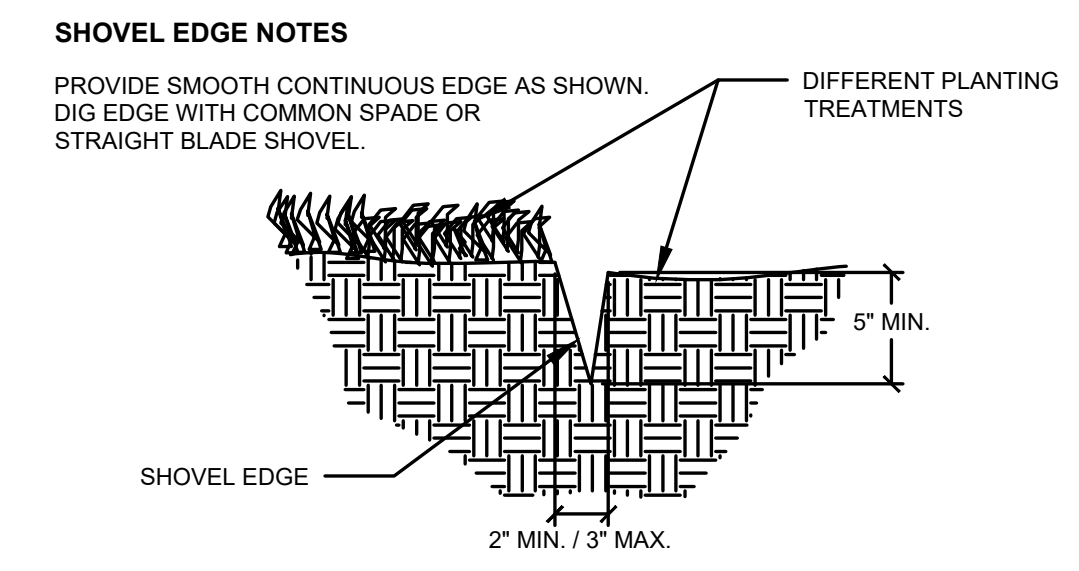


5 SHRUB BED PLANTING DETAIL
NTS

NOTE: USE AS DIRECTED BY FIELD ENGINEER

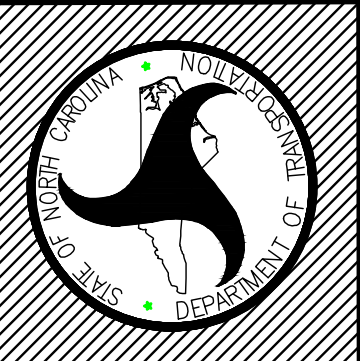


6 GUARDRAIL MULCHING DETAIL
NTS

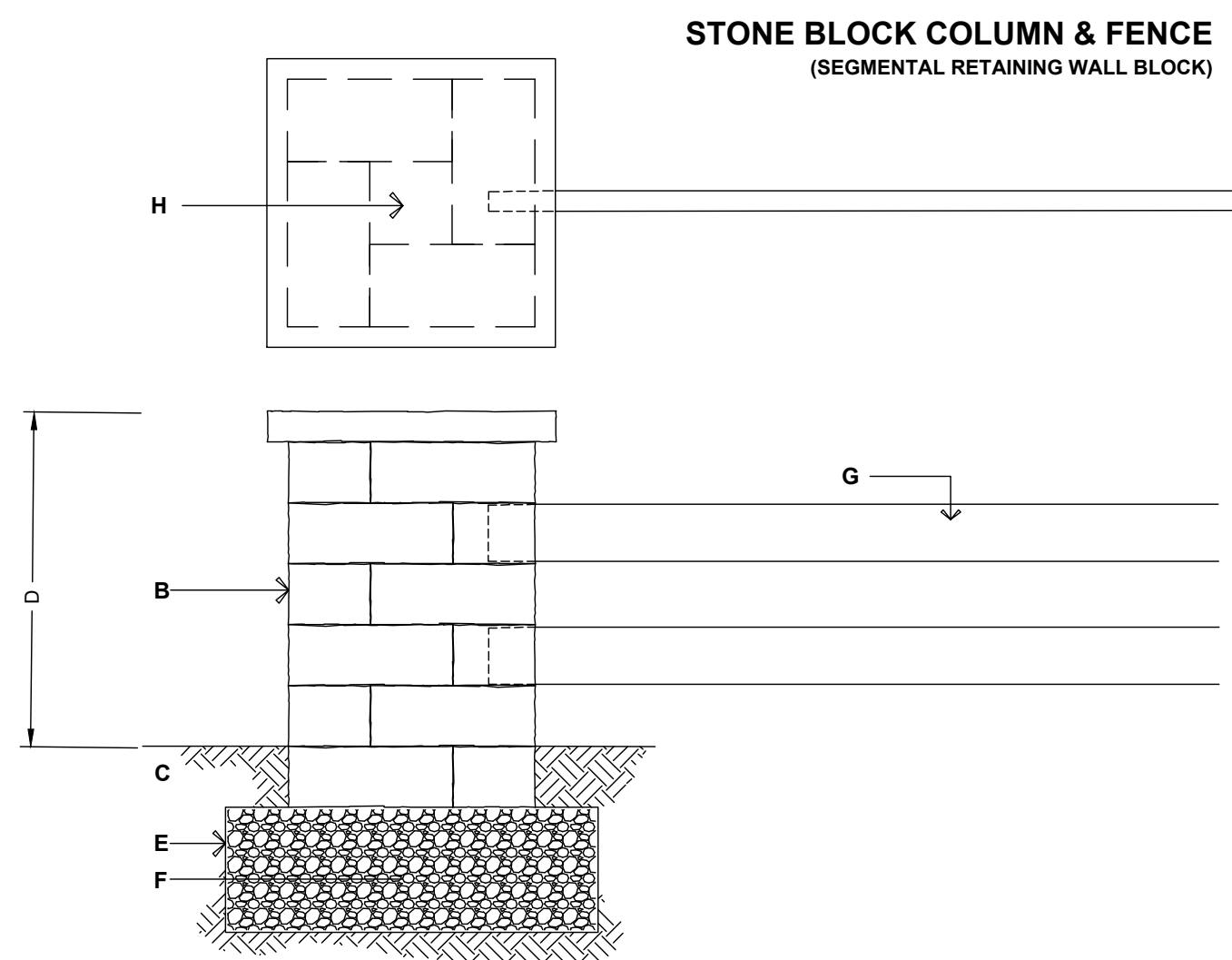


8 SHOVEL EDGE DETAIL
NTS

NOTES:
SCHEDULE FOR PLANT HOLE SIZE:
PLANT HOLE WIDTH (X) TO BE TWICE THE ROOT BALL SIZE OR CONTAINER DIAMETER.
SEE STANDARD SPECIFICATIONS FOR PLANT BED FUMIGATION AND HERBICIDAL TREATMENT.
APPLY FERTILIZER AT PLANTING TIME IN THE FORM OF A SLOW RELEASE PELLET OR TABLET. APPLY AT RATE RECOMMENDED BY MANUFACTURER. BOTH RATE AND FORMULATION MUST BE APPROVED BY FIELD ENGINEER PRIOR TO APPLICATION.
REMOVE WIRE BASKET AND FOLD BURLAP BACK FROM TOP OF ROOT BALL BEFORE BACKFILLING IS COMPLETE.
ALL PRUNING TO FOLLOW STANDARD ARBORICULTURAL PRACTICES AS SPECIFIED BY INTERNATIONAL SOCIETY OF ARBORICULTURE.
DO NOT ATTEMPT TO STRAIGHTEN A TREE THAT HAS BEEN PLANTED AT AN ANGLE WITH THE USE OF STAKING OR GUYING. DIG TREE AND REPLANT TO UPRIGHT POSITION.
FINELY RAKE ALL DISTURBED AREAS, PLANT BEDS AND TREE RINGS, TO A SMOOTH AND CONSISTENT SURFACE. REMOVE CLUMPS, DEBRIS, ROCKS GREATER THAN 2" IN SIZE.
DO NOT LEAVE LOW AREA OR INCONSISTENT SURFACES WHERE WATER WILL PUDDLE AND ACCUMULATE WITHOUT PROPER DRAINAGE.



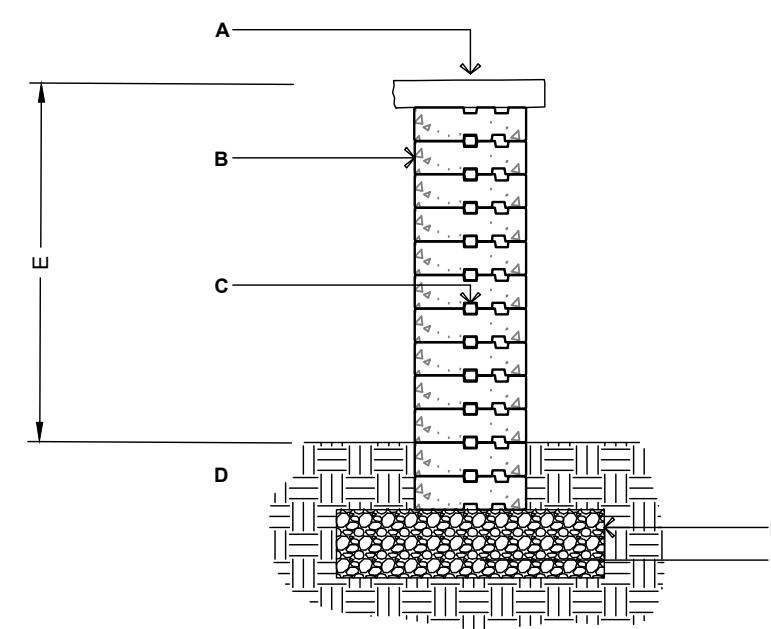
Plans Drawn By:	C. KENNEDY
Scale	AS NOTED
Date	06 / 12 / 24
Sheet Description	PLANTING DETAILS
Project #	19-0120
File Name	19-0120_D
Sheet #	L-3



- A. 28" X 28" X 2 1/2" pillar cap (secure with concrete adhesive)
- B. 16" x 8" Retaining wall block (pillar unit) Secure each row with concrete adhesive
- C. Embedment depth, 6" (150 mm) min.
- D. 47 1/4" (1200 mm), max. height
- E. Geotextile
- F. Compacted granular base 6" (150 mm) thick min. #57 stone
- G. 2" X 6" X 8" PVC Rail I inset (min. 3") into column for support
- H. Fill the column center void with #57 aggregate

TYPICAL SECTION - COLUMNS WITH SEGMENTAL BLOCK MEMBERS
 NOTE: BLOCK MEMBERS TO BE OF THE TAN/BROWN COLOR MIX WITH A MATCHING CAPSTONE. ALL WALLS, COLUMNS, AND CAPS TO BE OF THE SAME BLOCK FAMILY AND BE OF MATCHING COLORS/HUES.
 THE CITED DIMENSIONS ARE USED ONLY TO DENOTE THE APPROXIMATE SIZE OF THE PRODUCT DESIRED AND THAT THEY DO NOT RESTRICT BIDDERS TO ANY SPECIFIC BRAND, MAKE, MANUFACTURER, OR SPECIFIC NAME.

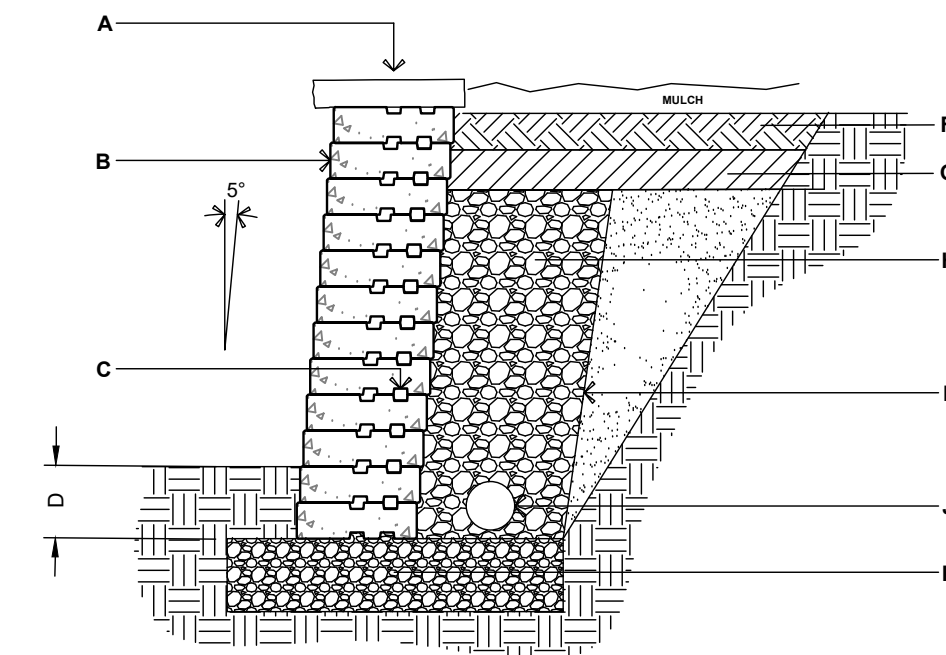
STONE BLOCK WALL
 (FREESTANDING - SEGMENTAL RETAINING WALL BLOCK)



- A. 2 1/2" Column Cap (secure with concrete adhesive)
- B. 3" Double-Sided Wall Unit (Secure each row with concrete adhesive)
- C. Connector
- D. Embedment depth, 6" (150 mm) min.
- E. 3'-2" (975 mm) max.
- F. Geotextile
- G. Compacted granular leveling pad, 6" (150 mm) thick min. Thickness according to project specific conditions

TYPICAL SECTION - COLUMNS WITH SEGMENTAL BLOCK MEMBERS
 NOTE: BLOCK MEMBERS TO BE OF THE TAN/BROWN COLOR MIX WITH A MATCHING CAPSTONE. ALL WALLS, COLUMNS, AND CAPS TO BE OF THE SAME BLOCK FAMILY AND BE OF MATCHING COLORS/HUES.
 THE CITED DIMENSIONS ARE USED ONLY TO DENOTE THE APPROXIMATE SIZE OF THE PRODUCT DESIRED AND THAT THEY DO NOT RESTRICT BIDDERS TO ANY SPECIFIC BRAND, MAKE, MANUFACTURER, OR SPECIFIC NAME.

STONE BLOCK RETAINING WALL
 (SEGMENTAL RETAINING WALL BLOCK)

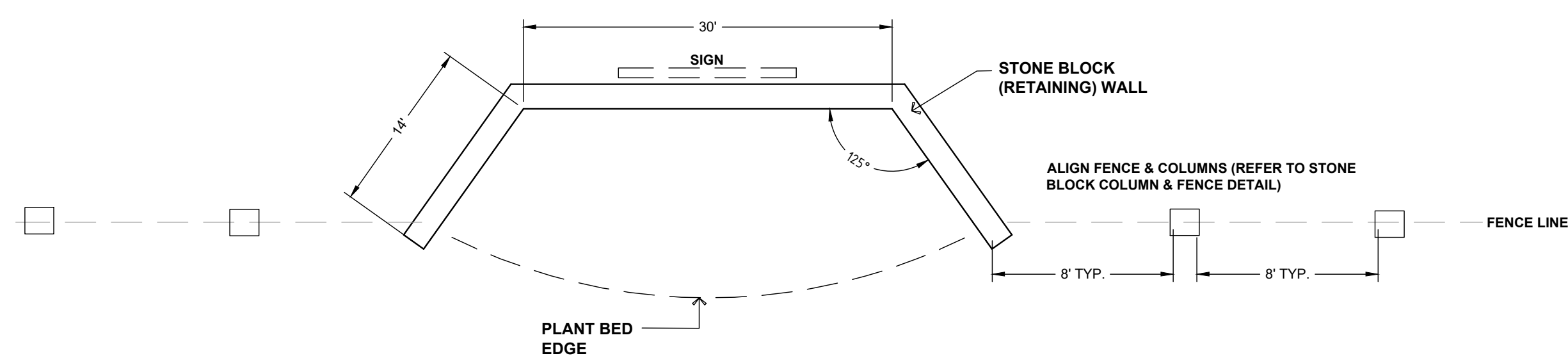


UTILIZATION OF A RETAINING WALL ON THIS PROJECT IS MINIMAL. BACKFILL WALL WITH STONE AND INTEGRATE DRAIN PIPE.

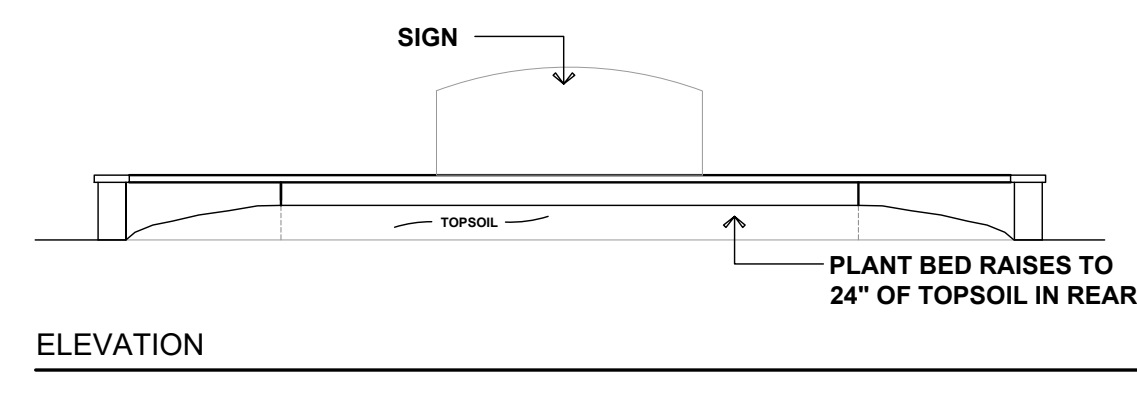
- A. 2 1/2" Column Cap (secure with concrete adhesive)
- B. 3" double-sided wall unit
- C. Connector (pin or key)
- D. Embedment depth, 6" (150 mm) min.
- E. Total height (variable; < 48")
- F. Topsoil
- G. Low permeability soil
- H. Free draining aggregate, 12" (300 mm) thick min.
- I. Geotextile
- J. Perforated drain, 4" (100 mm) dia. min. (daylight outlet)
- K. Compacted granular leveling pad, 6" (150 mm) thick min. Thickness according to project specific conditions

TYPICAL SECTION - COLUMNS WITH SEGMENTAL BLOCK MEMBERS
 NOTE: BLOCK MEMBERS TO BE OF THE TAN/BROWN COLOR MIX WITH A MATCHING CAPSTONE. ALL WALLS, COLUMNS, AND CAPS TO BE OF THE SAME BLOCK FAMILY AND BE OF MATCHING COLORS/HUES.
 THE CITED DIMENSIONS ARE USED ONLY TO DENOTE THE APPROXIMATE SIZE OF THE PRODUCT DESIRED AND THAT THEY DO NOT RESTRICT BIDDERS TO ANY SPECIFIC BRAND, MAKE, MANUFACTURER, OR SPECIFIC NAME.

1 STONE BLOCK COLUMN & FENCE
 NTS



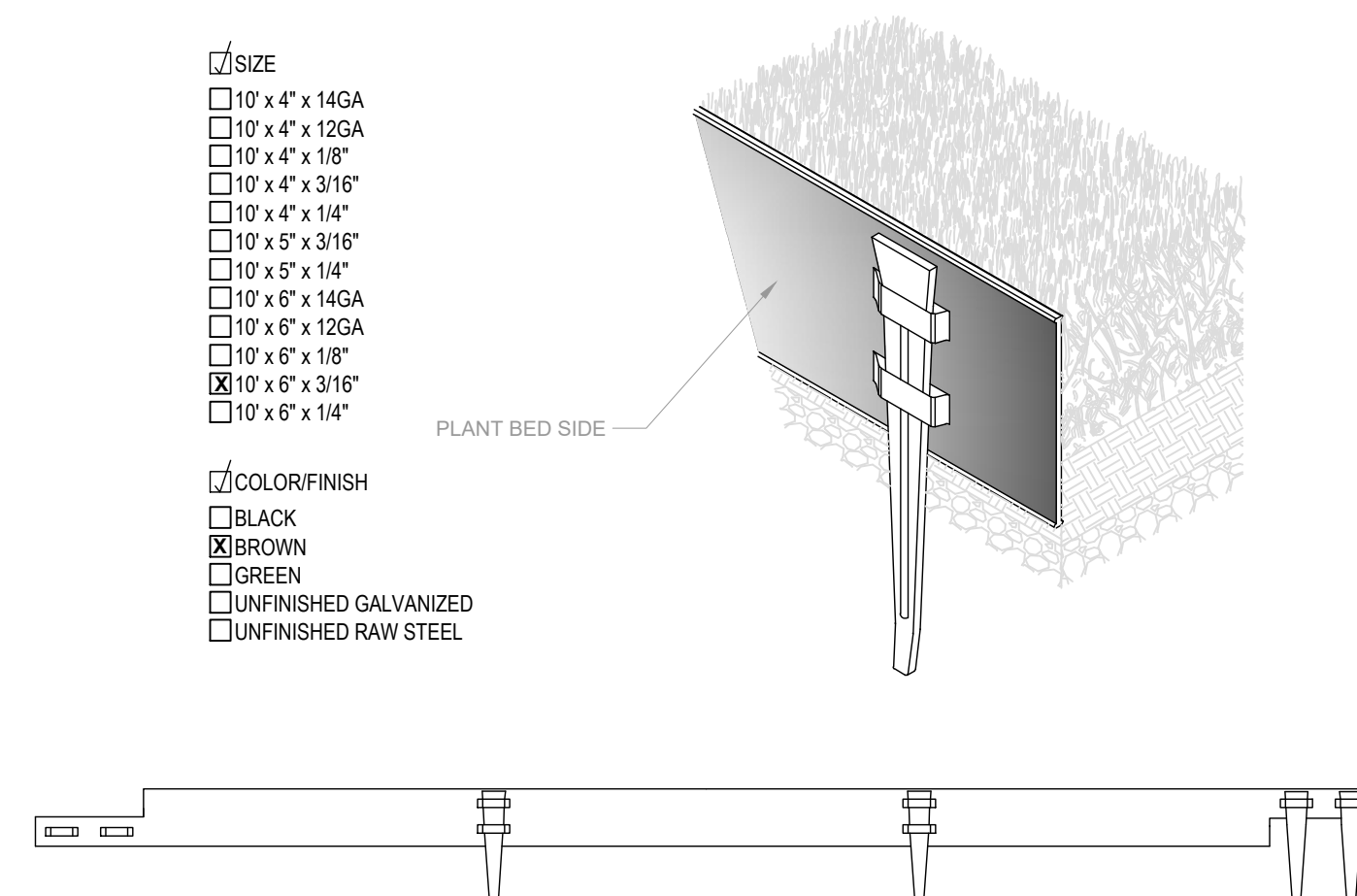
PLAN NTS



ELEVATION NTS

4 PLANTER BED - WALL
 NTS

2 STONE BLOCK WALL
 NTS



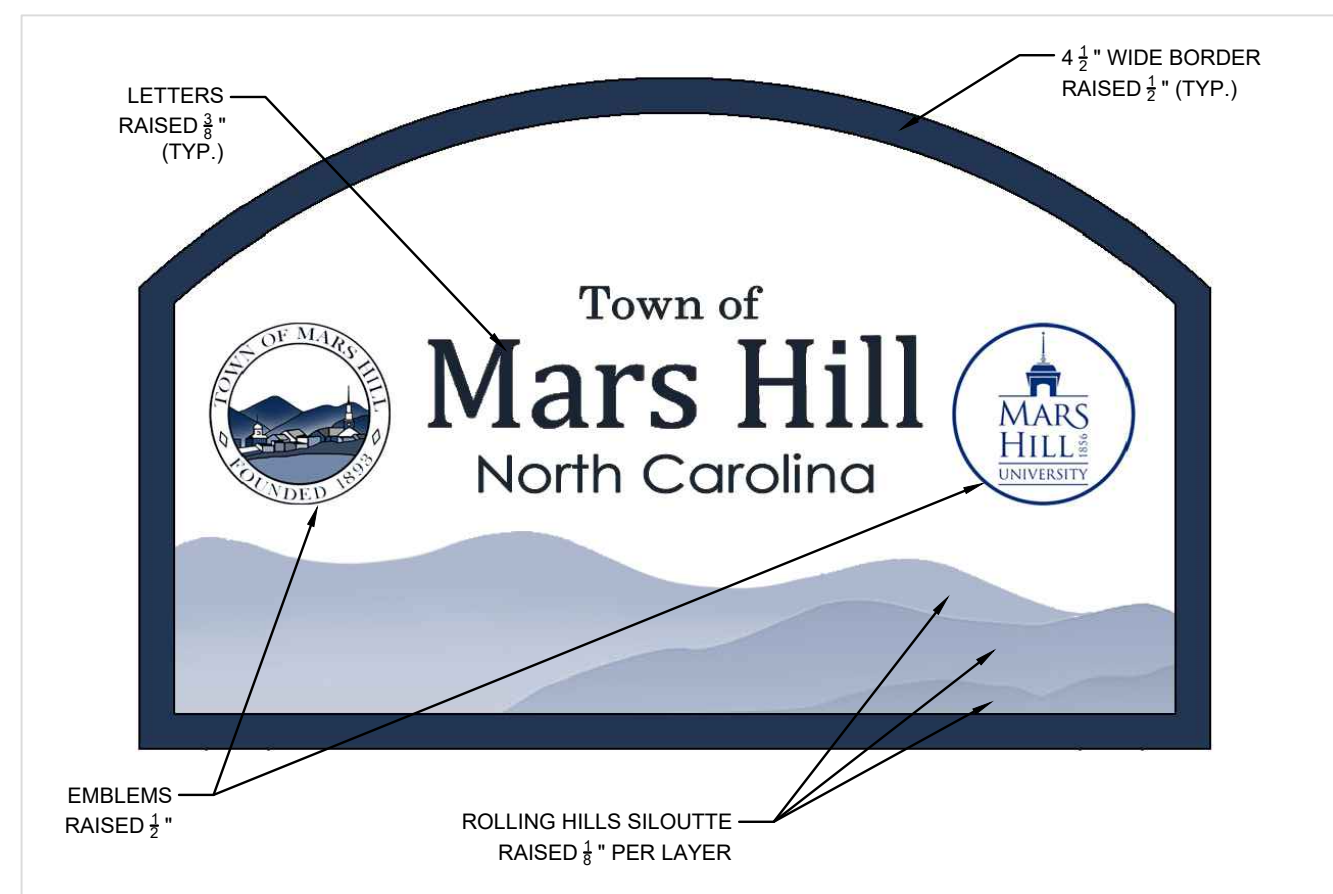
- NOTES:**
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. POWDER COATED FINISHED.
 3. COORDINATE SPECIFIC SITE PLACEMENT & INSTALLATION WITH THE NCDOT ENGINEER.
 4. USE MANUFACTURER PROVIDED CORNERS, ANGLES, AND ENDS.
 5. ALL CUT EDGES SHALL BE TREATING WITH TWO COATS OF MATCHING EXTERIOR GRADE PAINT.

5 COMMERCIAL GRADE STEEL LANDSCAPE EDGING
 NTS

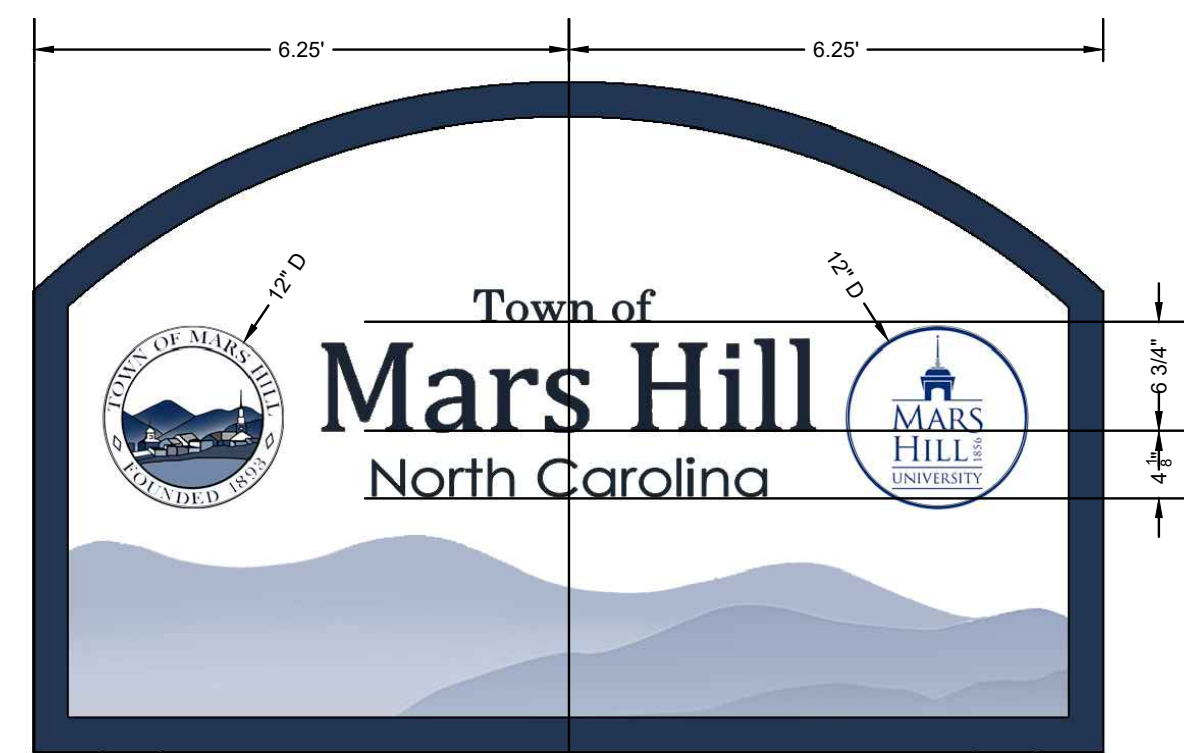
3 STONE BLOCK RETAINING WALL
 NTS



Plans Drawn By:	C. KENNEDY
Scale:	AS NOTED
Date:	06 / 12 / 24
Sheet Description:	LANDSCAPE DETAILS
Project #:	19-0120
File Name:	19-0120_D
Sheet #:	L-4



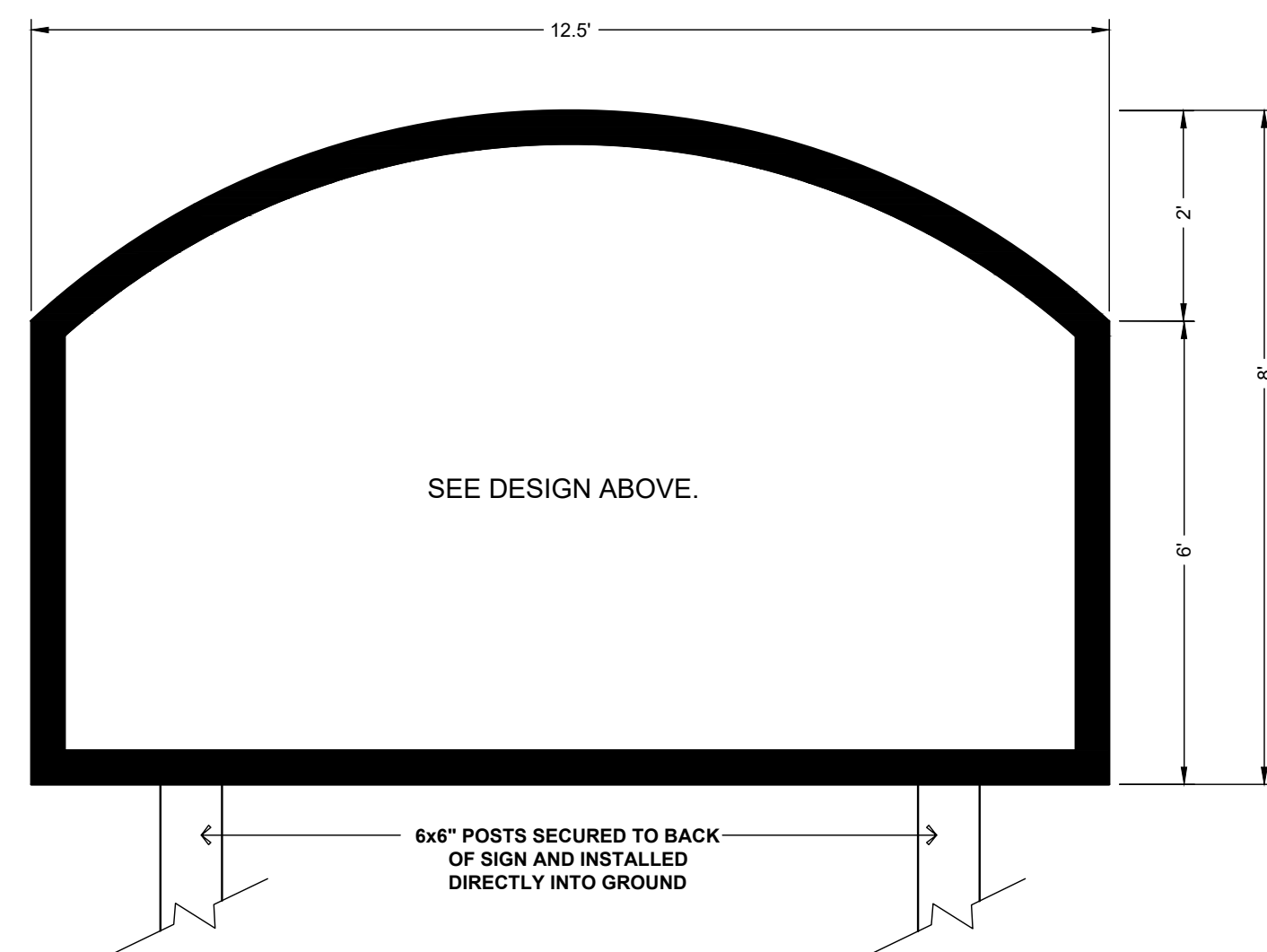
1 SIGN DESIGN
NTS



2 SIGN DETAIL
NTS

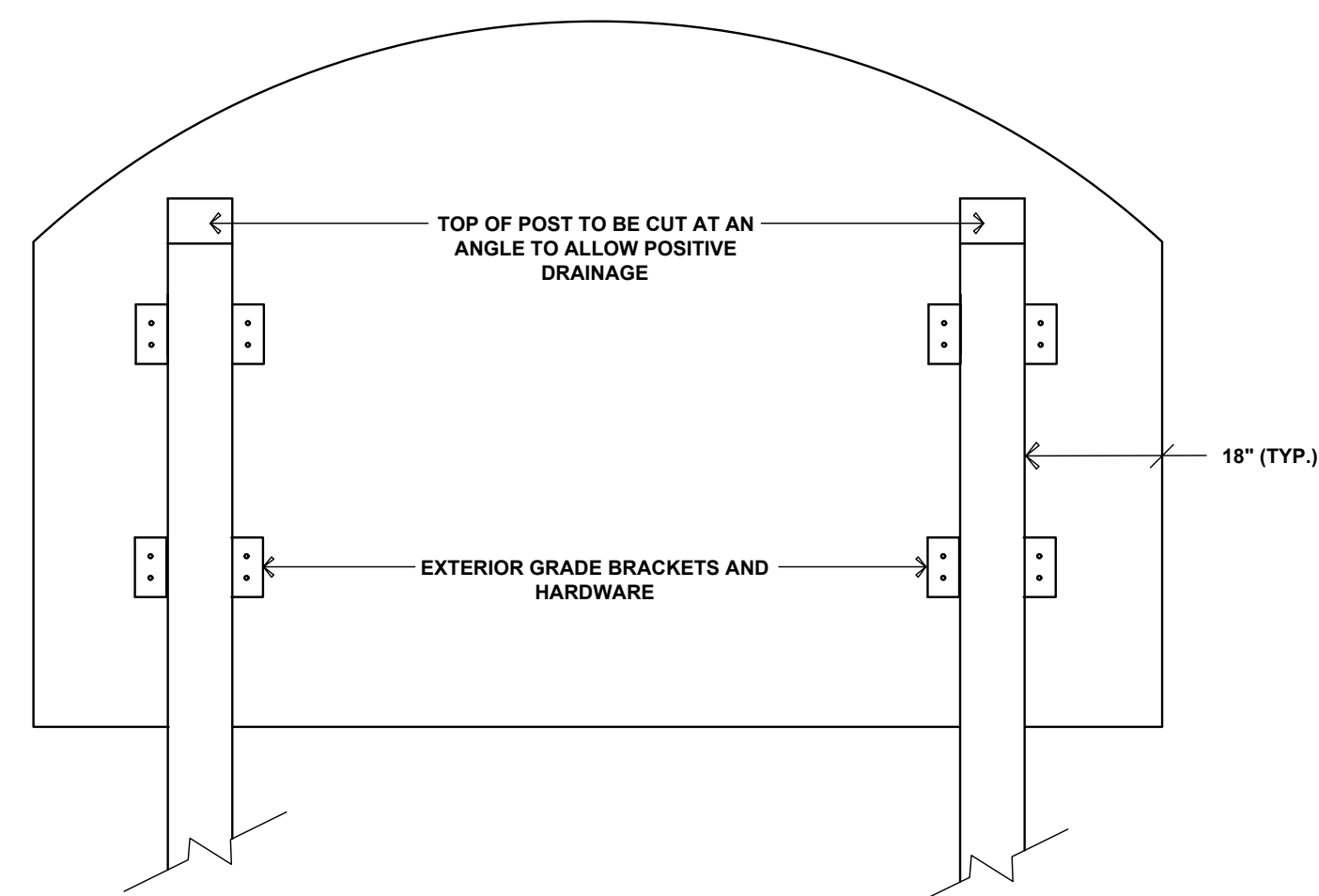
NOTES;

- EPS GRAPHIC FILE(S) AVAILABLE UPON REQUEST.
- "TOWN OF MARS HILL" IN THE TYPEFACE STYLE OF "GEORGIA".
- "NORTH CAROLINA" IN THE TYPEFACE STYLE OF "CENTURY GOTHIC".
- TEXT IN COLOR CODE #192435 (25, 36, 53).
- BORDER AND OTHER GRAPHICS IN SHADES OF COLOR CODE #223654 (34, 54, 84).
- SIGN MANUFACTURER TO SUBMIT PANEL SIZES, SEAM LAYOUT, FINAL ARTWORK, PAINTING AND JOINTING SPECIFICATIONS FOR APPROVAL PRIOR TO WORK.



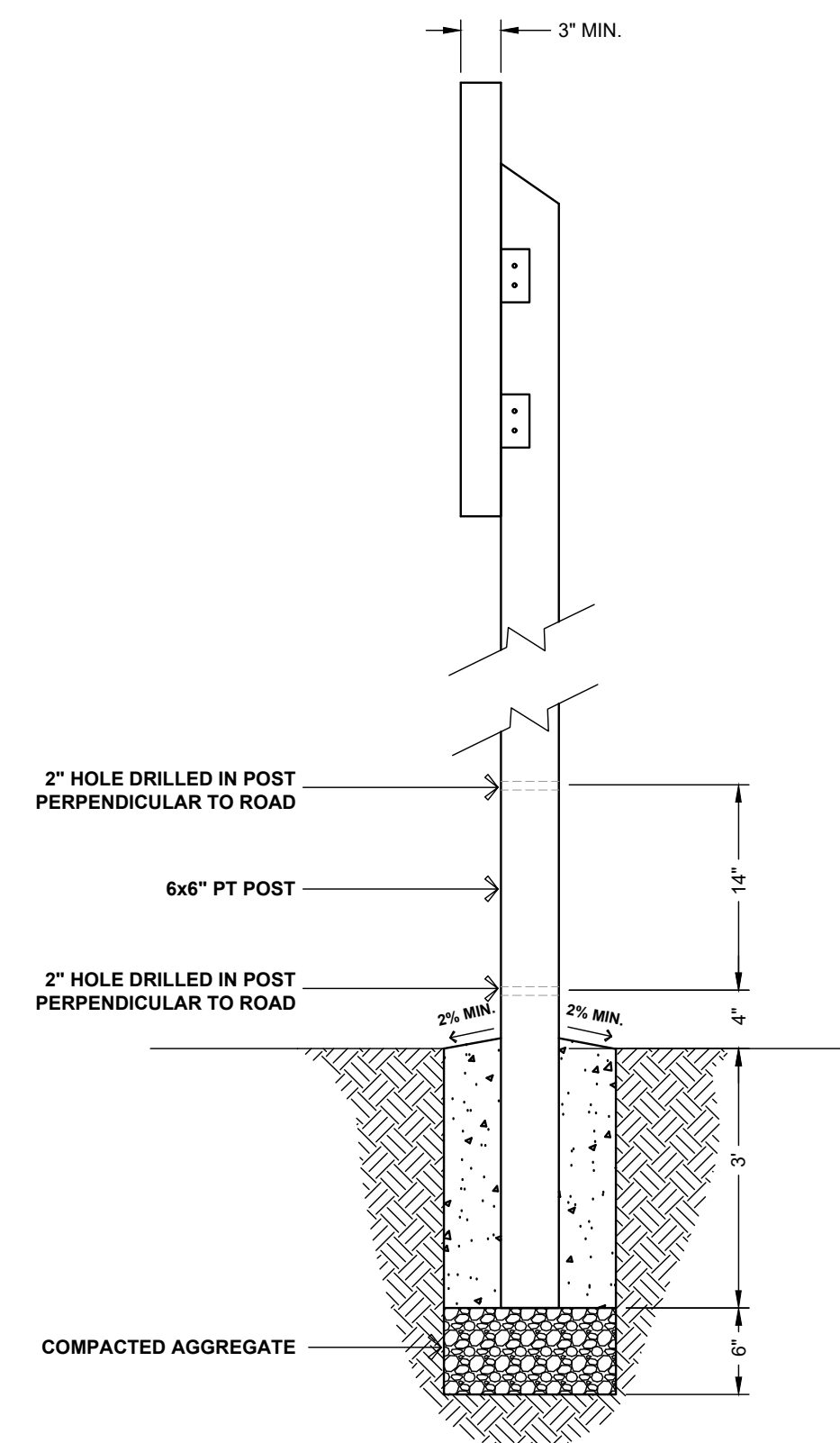
Note: Entry sign to be fabricated with HDU (high-density urethane).

3 FRONT OF SIGN
NTS



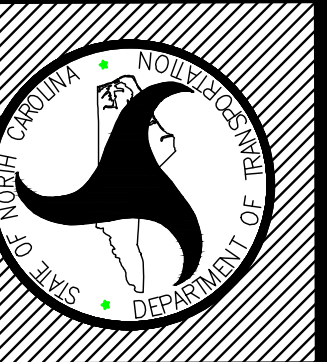
Note: Sign may need more connections and/or bracing depending on size of HDU panels and recommendations from fabricator.

4 BACK OF SIGN
NTS



5 SIDE OF SIGN & POST CONNECTION
NTS

NOTE: "TOWN OF MARS HILL NORTH CAROLINA" SIGN, POSTS, AND ALL HARDWARE TO BE PROVIDED, ERECTED, AND INSTALLED BY THE TOWN OF MARS HILL.



Plans Drawn By:

C. KENNEDY

Scale

AS NOTED

Date

06 / 12 / 24

Sheet Description

LANDSCAPE DETAILS

Project #

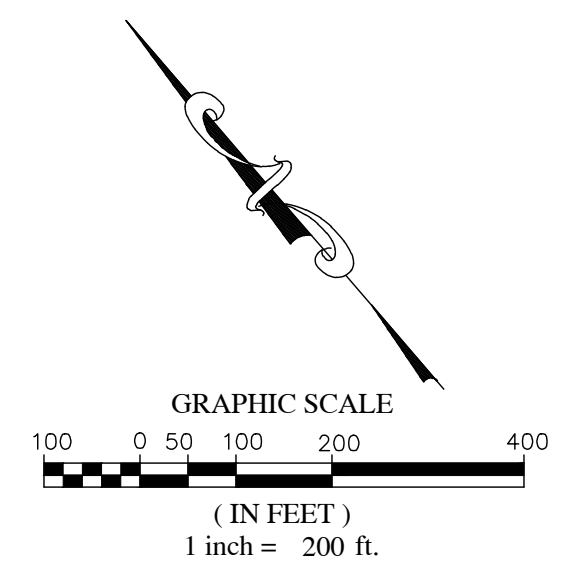
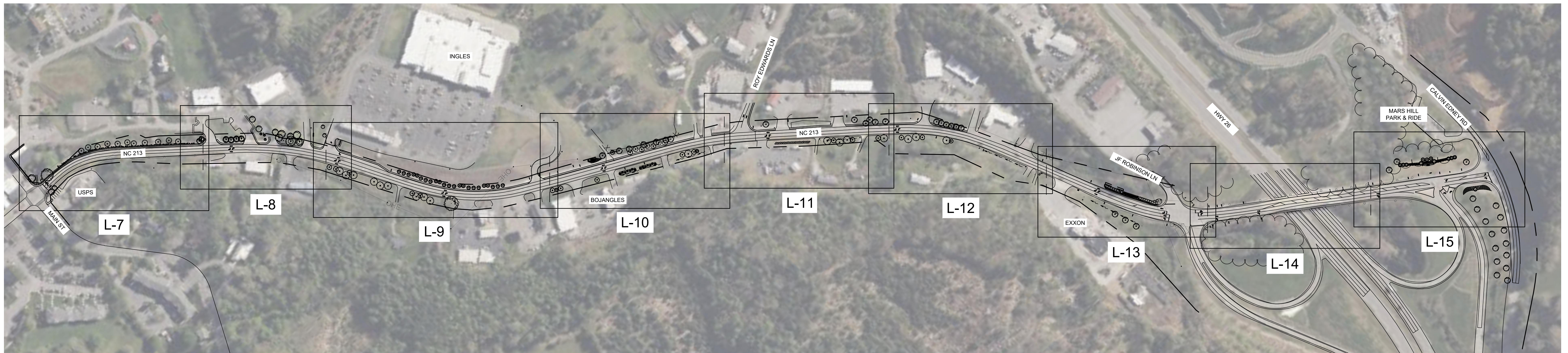
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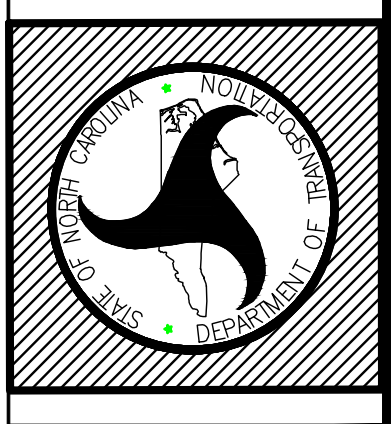
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Sheet #

L-5

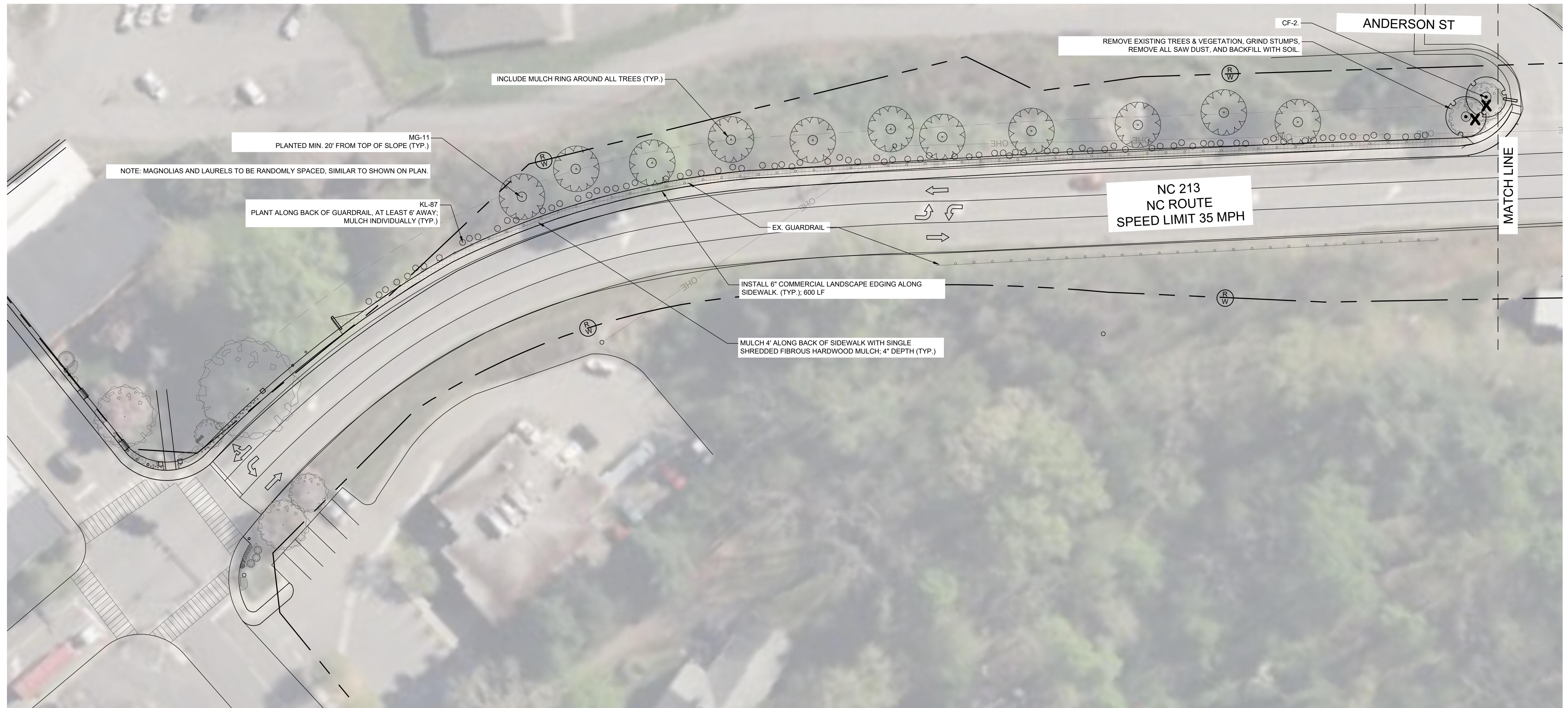


North Carolina Department of Transportation
 Roadside Environmental Unit
 Landscape Design & Development Section



MARS HILL GATEWAY ENHANCEMENTS
 DIVISION 13 ENHANCEMENTS

Plans Drawn By:	C. KENNEDY
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Date	06 / 12 / 24
Sheet Description	LANDSCAPE PLAN- KEY MAP
Project #	19-0120
File Name	19-0120_S
Sheet #	L-6



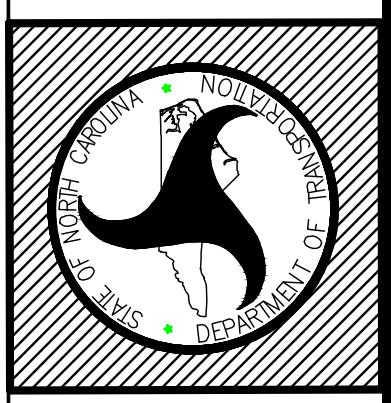
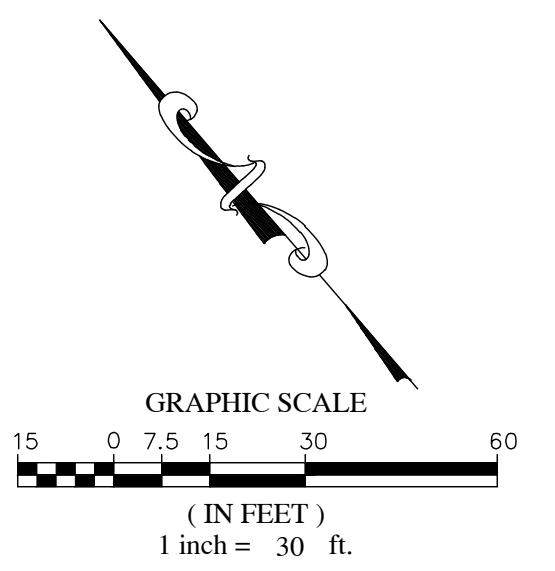
PLANTING SCHEDULE FOR L-7

TREES									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
CORNUS FLORIDA 'CHEROKEE CHIEF'	CHEROKEE PRINCESS DOGWOOD	CF	2	3/4" CAL	B&B	5' MIN			
MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	MG	11	1-1/2" CAL	B&B	8' MIN	X		

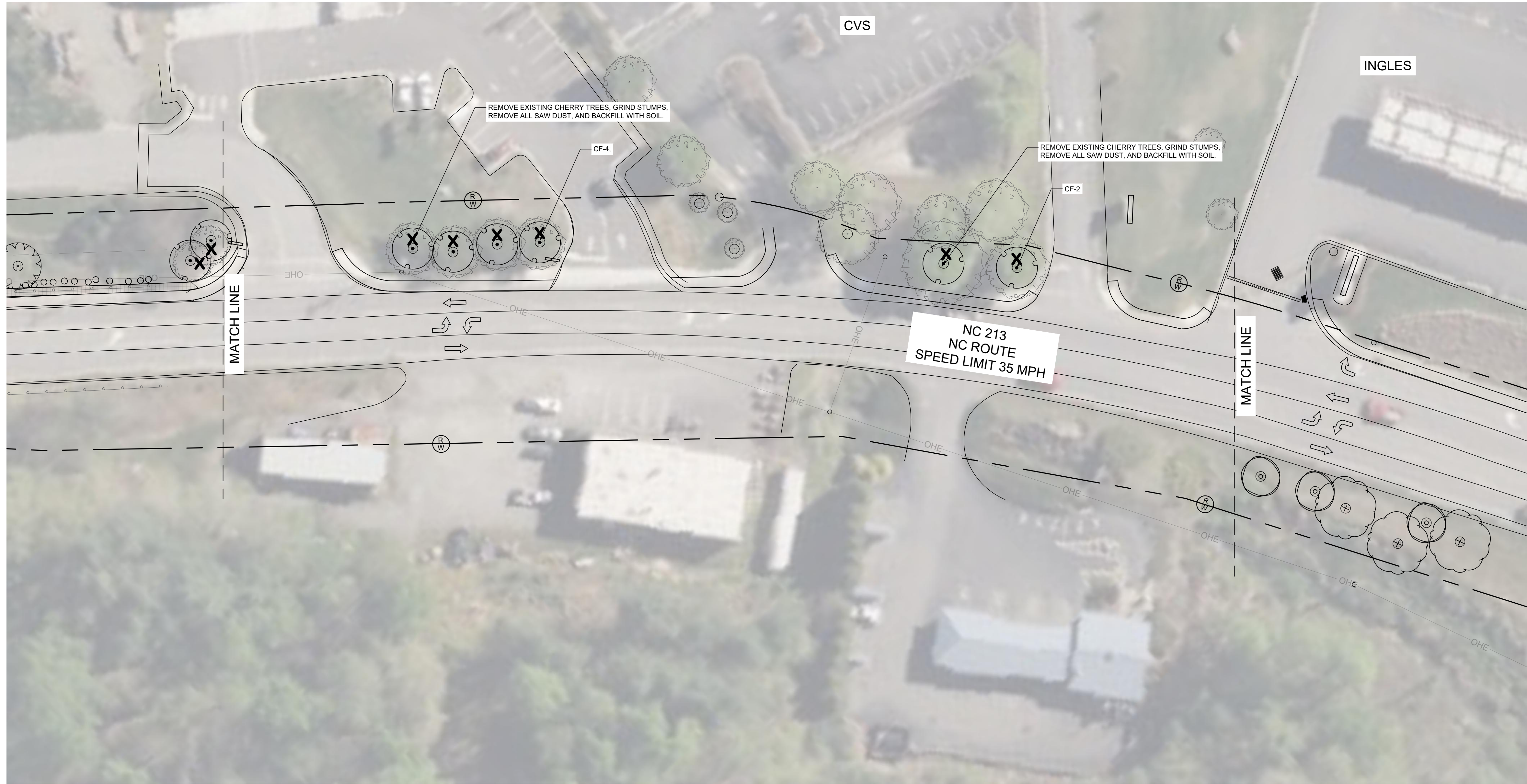
SHRUBS									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
KALMIA LATIFOLIA	MOUNTAIN LAUREL	KL	87		#1 CONT	16"	X		

OTHER QUANTITIES FOR L-7	
MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 3,600 SF

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.

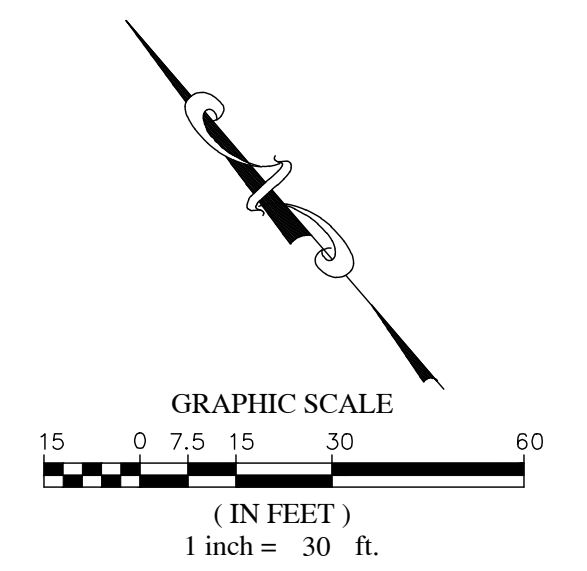


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Scale	AS NOTED
Date	06/12/24
Sheet Description	LANDSCAPE PLAN
Project #	19-0120
File Name	19-0120_S
Sheet #	L-7

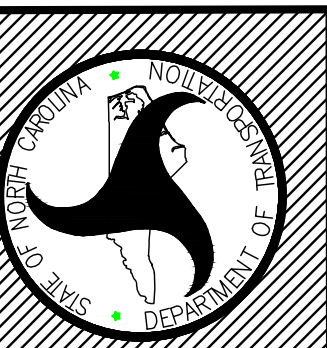


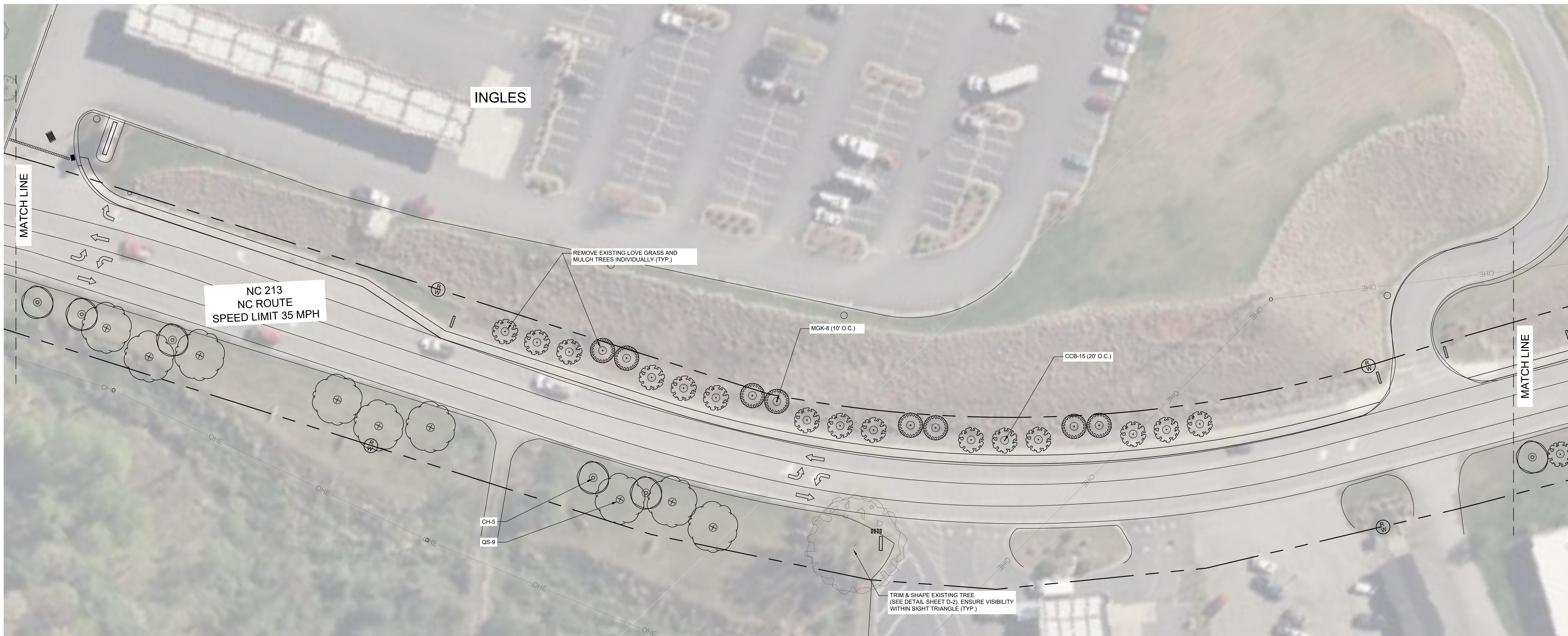
PLANTING SCHEDULE FOR L-8									
TREES									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
CORNUS FLORIDA 'CHEROKEE CHIEF'	CHEROKEE PRINCESS DOGWOOD	CF	6	3/4" CAL	B&B	5' MIN			
OTHER QUANTITIES FOR L-8									
MATERIAL/LABOR	QUANTITY								
AREA TO BE GRADED	+/- 1,200 SF								

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.



NOTE: "TOWN OF MARS HILL NORTH CAROLINA" SIGN, POSTS, AND ALL HARDWARE TO BE PROVIDED, ERECTED, AND INSTALLED BY THE TOWN OF MARS HILL.

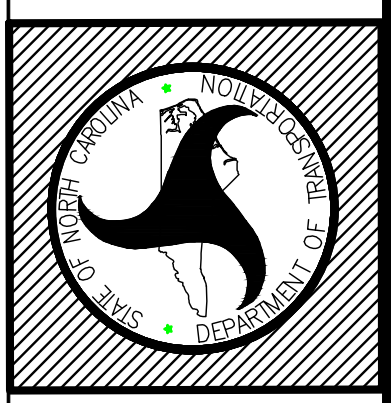
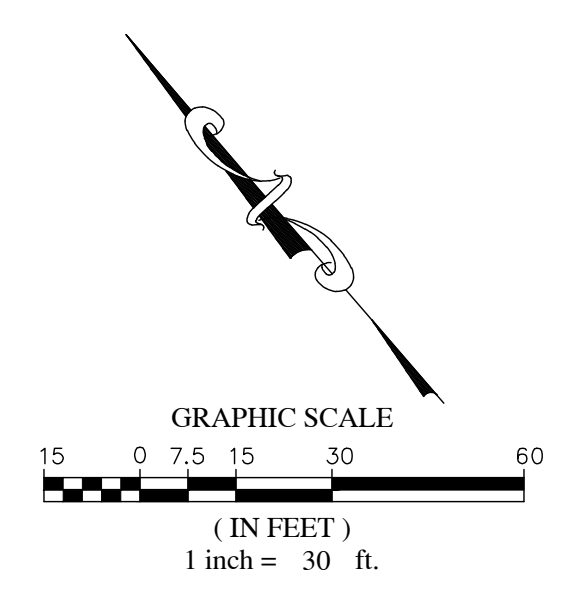




PLANTING SCHEDULE FOR L-9

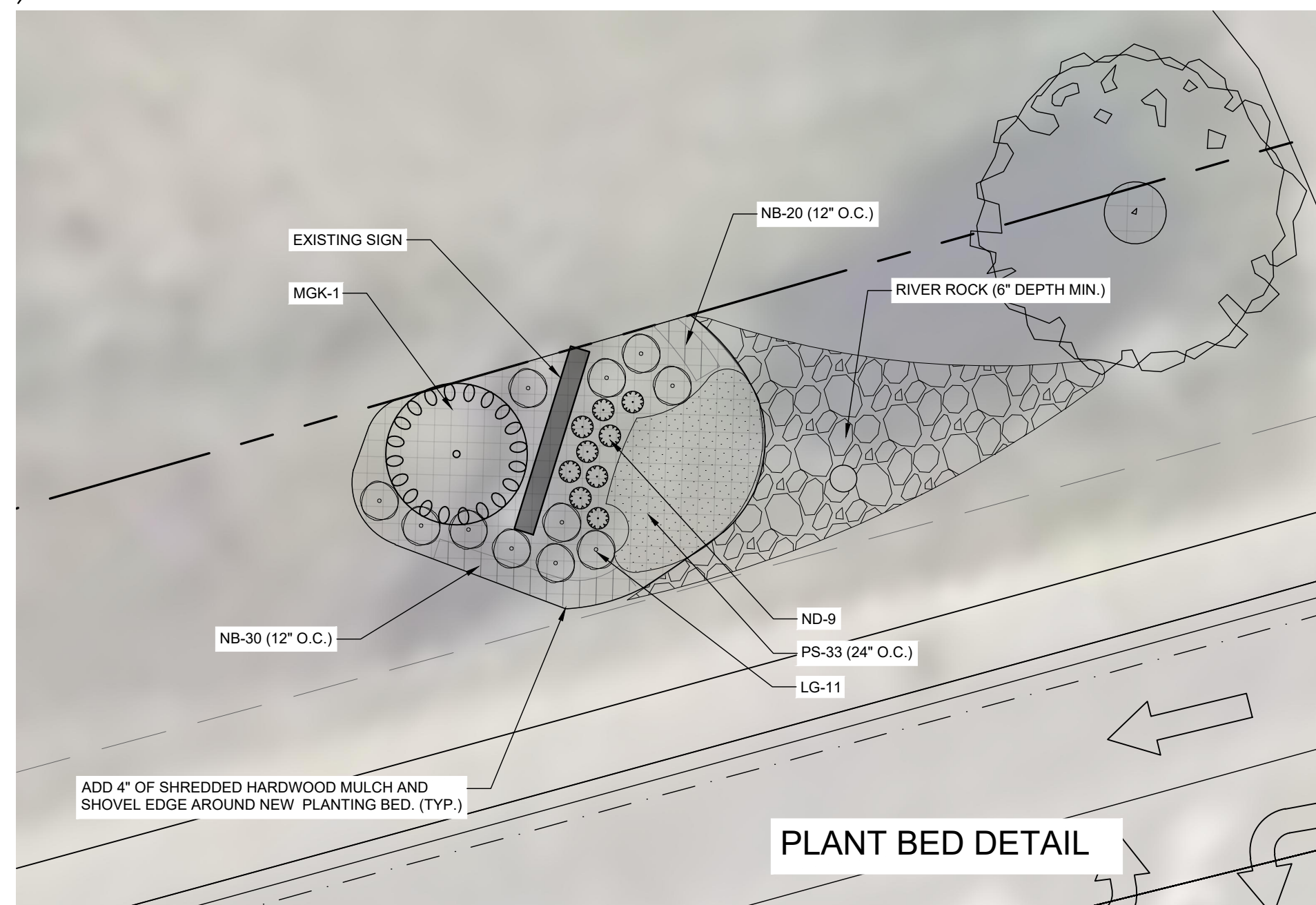
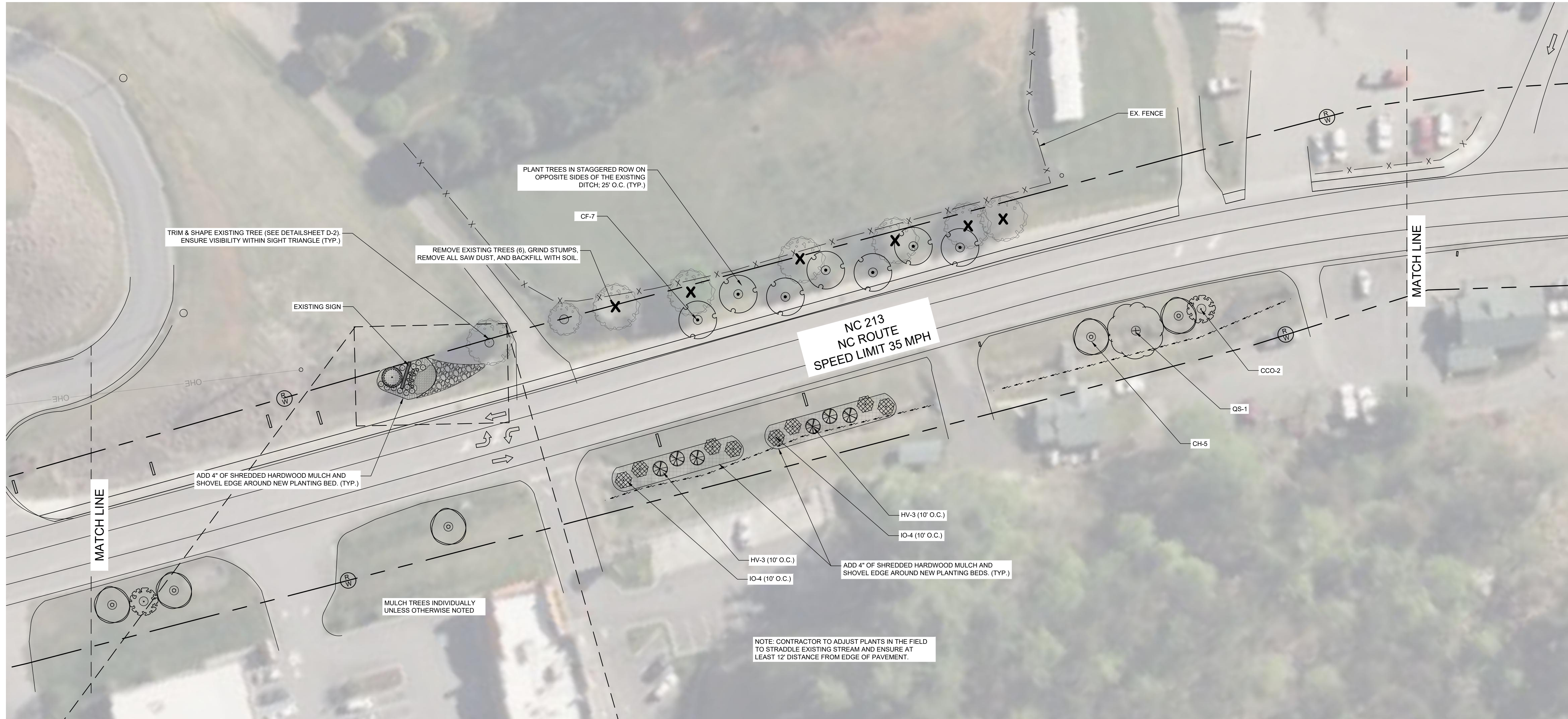
TREES							
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN COMMENTS
CARPINUS CAROLINIANA	AMERICAN HORNBEAM	CH	5	3/4" CAL	B&B	5' MIN	
CERCIS CANADENSIS 'BLACK PEARL'	BLACK PEARL REDBUD	CCB	15	3/4" CAL	B&B	5' MIN	
MAGNOLIA GRANDIFLORA 'KAY PARRIS'	KAY PARRIS MAGNOLIA	MGK	8	3/4" CAL	B&B	5' MIN	X
QUERCUS SHUMARDII	SHUMARD OAK	QS	9	2" CAL	B&B	10' MIN	
OTHER QUANTITIES FOR L-9							
MATERIAL/LABOR	QUANTITY						
AREA TO BE GRADED	+/- 3,700 SF						

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.



MARS HILL GATEWAY ENHANCEMENTS
 DIVISION 13 ENHANCEMENTS

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Project #	19-0120
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Sheet #	L-9



PLANTING SCHEDULE FOR L-10

TREES									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
CARPINUS CAROLINIANA	AMERICAN HORNBEAM	CH	5	3/4" CAL	B&B	5' MIN			
CERCIS CANADENSIS 'OKLAHOMA'	OKLAHOMA REDBUD	CCO	2	3/4" CAL	B&B	5' MIN			
CORNUS FLORIDA 'CHEROKEE CHIEF'	CHEROKEE PRINCESS DOGWOOD	CF	7	3/4" CAL	B&B	5' MIN			
ILEX OPACA	AMERICAN HOLLY	IO	8	3/4" CAL	B&B	5' MIN	X		
MAGNOLIA GRANDIFLORA 'KAY PARRIS'	KAY PARRIS MAGNOLIA	MGK	1	3/4" CAL	B&B	5' MIN	X		
QUERCUS SHUMARDII	SHUMARD OAK	QS	1	2" CAL	B&B	10' MIN			

SHRUBS

BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
HAMAMELIS VIRGINIANA	AMERICAN WITCHHAZEL	HV	6		#3 CONT	24"		
LINNAEA X GRANDIFLORA 'HOPLEYS'	DWARF ABELIA	LG	11		#3 CONT	18"		
NANDINA DOMESTICA 'FLIRT'	FLIRT NANDINA	ND	9		#3 CONT	18"	X	

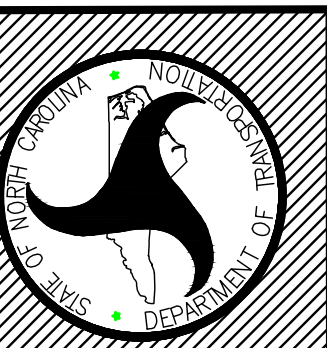
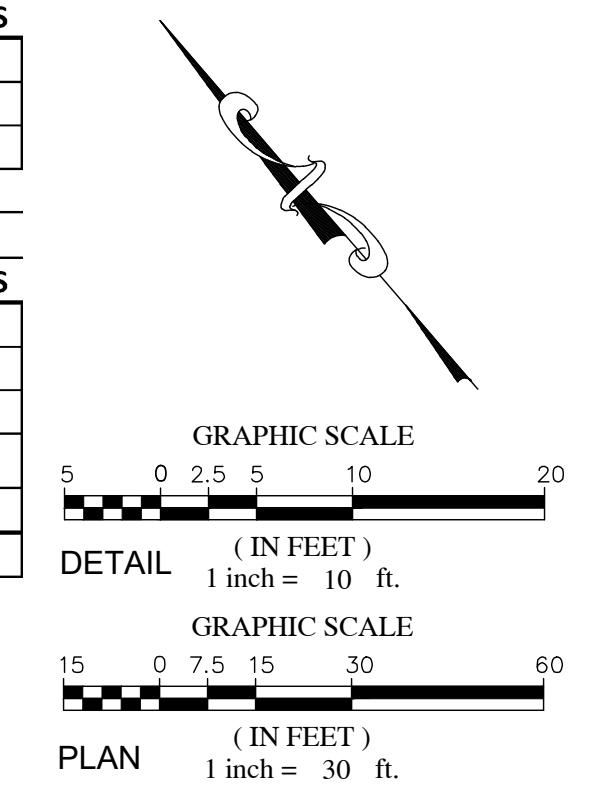
PERENNIALS

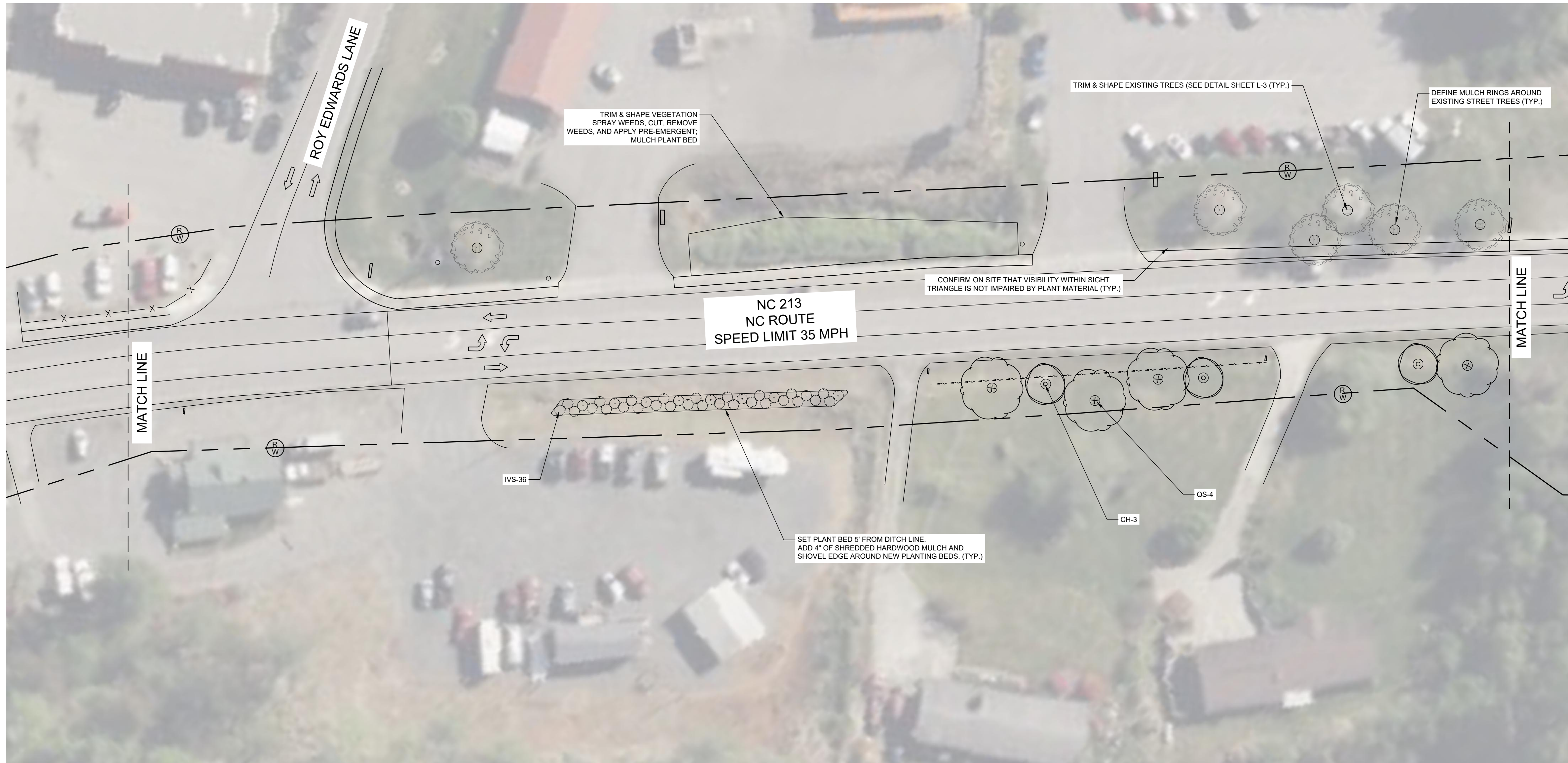
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
NARCISSUS 'BRITISH GAMBLE'	BRITISH GAMBLE DAFFODIL	NB	50	BULB				12" O.C.
PHLOX SUBULATA	CREEPING PHLOX	PS	33		QT			2' O.C.

OTHER QUANTITIES FOR L-10

MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 4,100 SF

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.





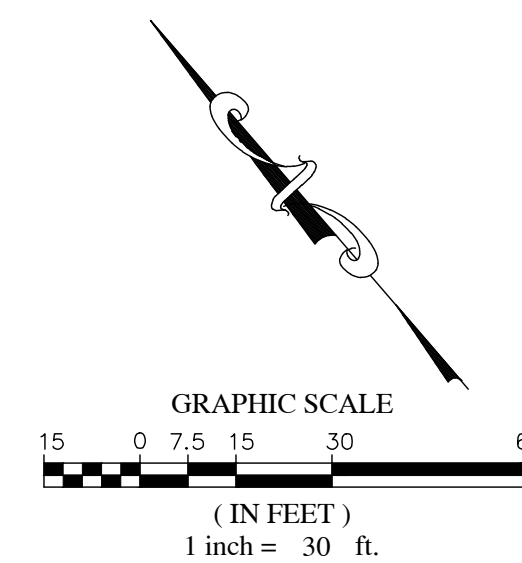
PLANTING SCHEDULE FOR L-11

TREES									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
CARPINUS CAROLINIANA	AMERICAN HORNBEAM	CH	3	3/4" CAL	B&B	5' MIN			
QUERCUS SHUMARDII	SHUMARD OAK	QS	4	2" CAL	B&B	10' MIN			

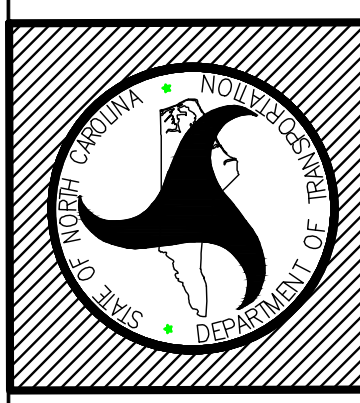
SHRUBS									
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS	
ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	IVS	36		#3 CONT	18"			

OTHER QUANTITIES FOR L-11	
MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 4,125 SF

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.



North Carolina Department of Transportation
 Roadside Environmental Unit
 Landscape Design & Development Section



MARS HILL GATEWAY ENHANCEMENTS
 DIVISION 13 ENHANCEMENTS

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Project #	19-0120
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Sheet #	L-11



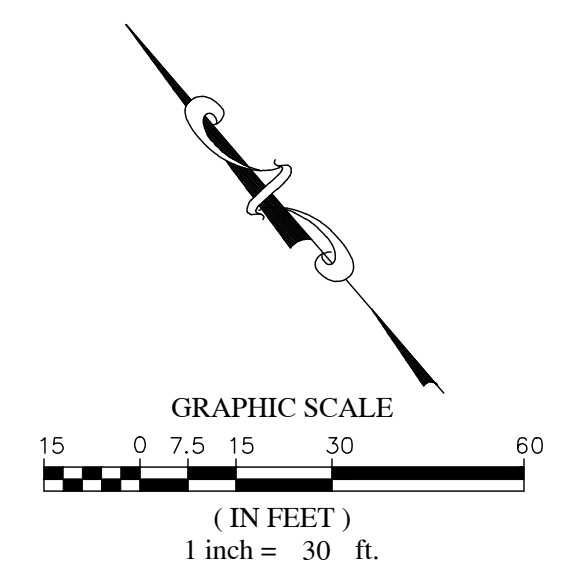
PLANTING SCHEDULE FOR L-12

TREES								
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
CARPINUS CAROLINIANA	AMERICAN HORNBEAM	CH	3	3/4" CAL	B&B	5' MIN		
QUERCUS SHUMARDII	SHUMARD OAK	QS	3	2" CAL	B&B	10' MIN		

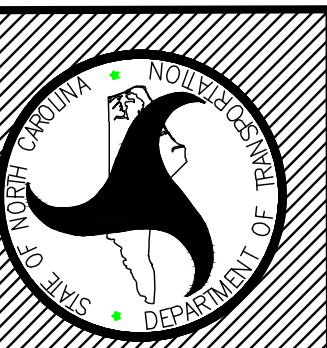
OTHER QUANTITIES FOR L-12

MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 600 SF

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.

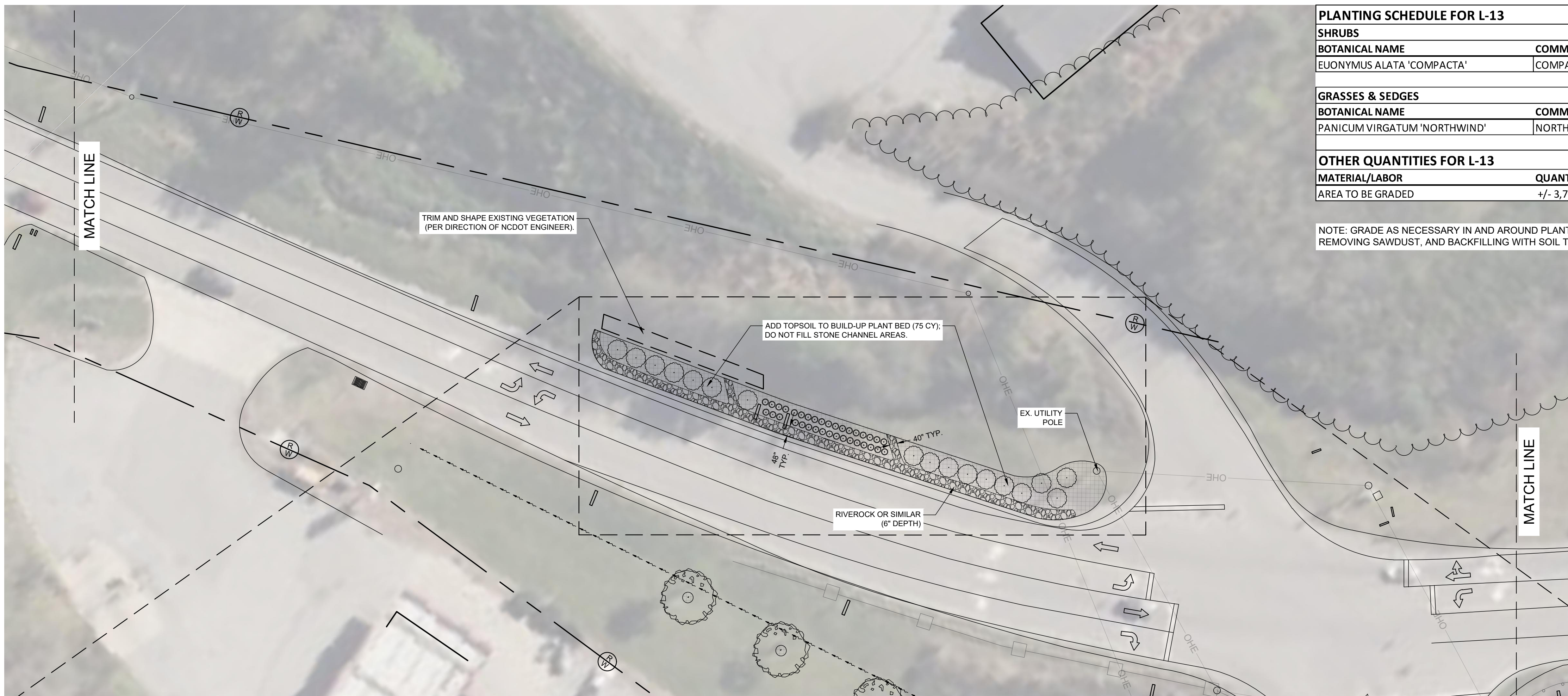


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MARS HILL GATEWAY ENHANCEMENTS
 DIVISION 13 ENHANCEMENTS

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 Sheet Description
 LANDSCAPE PLAN
 Project #
 19-0120
 File Name
 19-0120_S
 Sheet #
 L-12



PLANTING SCHEDULE FOR L-13

SHRUBS

BOTANICAL NAME	COMMON NAME	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
EUONYMUS ALATA 'COMPACTA'	COMPACTA BURNING BUSH	EA	17	#3 CONT	24"		

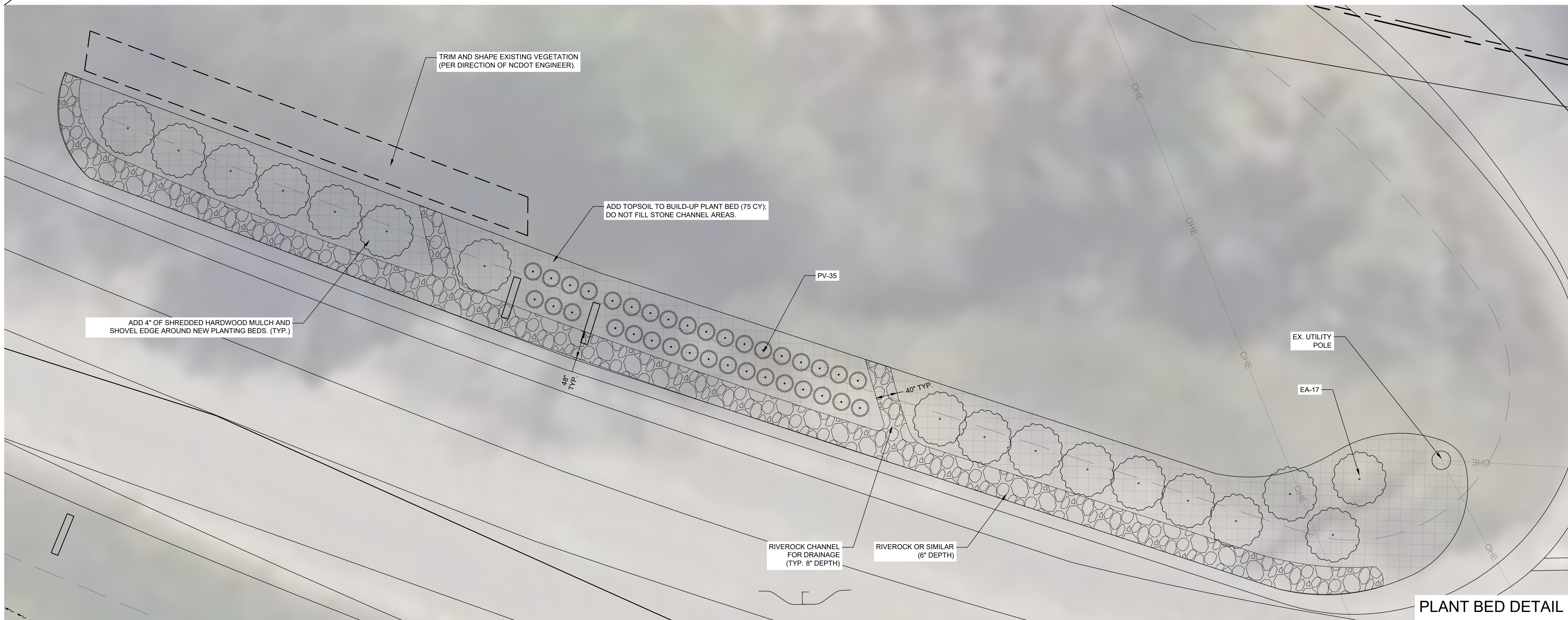
GRASSES & SEDGES

BOTANICAL NAME	COMMON NAME	QTY.	SIZE	ROOT	HT	EVERGREEN	COMMENTS
PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCHGRASS	PV	35	#1 CONT			

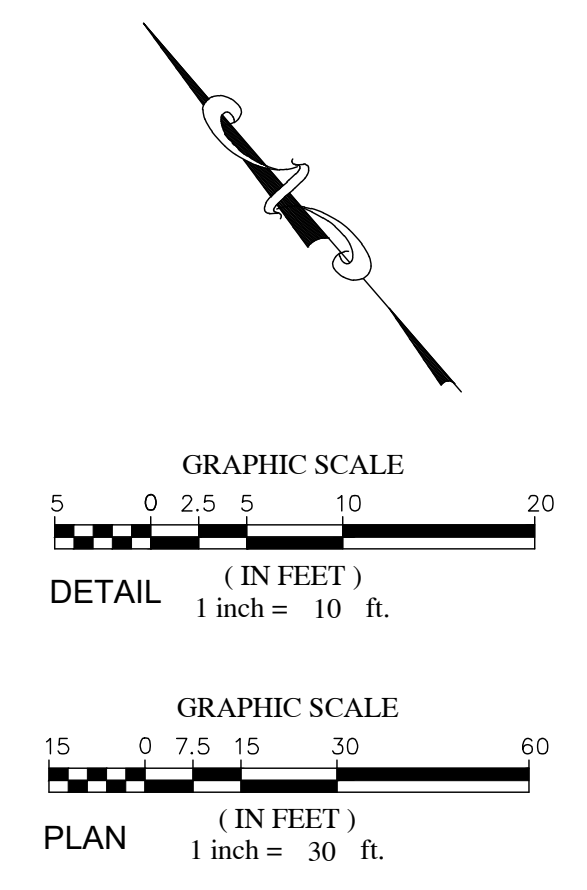
OTHER QUANTITIES FOR L-13

MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 3,700 SF

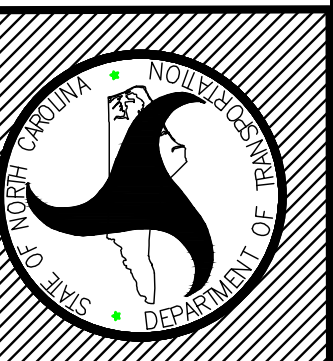
NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.



PLANT BED DETAIL



North Carolina Department of Transportation
 Roadside Environmental Unit
 Landscape Design & Development Section



MARS HILL GATEWAY ENHANCEMENTS
DIVISION 13 ENHANCEMENTS

Plans Drawn By:

C. KENNEDY

Scale

AS NOTED

Date

06 / 12 / 24

Sheet Description

LANDSCAPE PLAN

Project #

19-0120

File Name

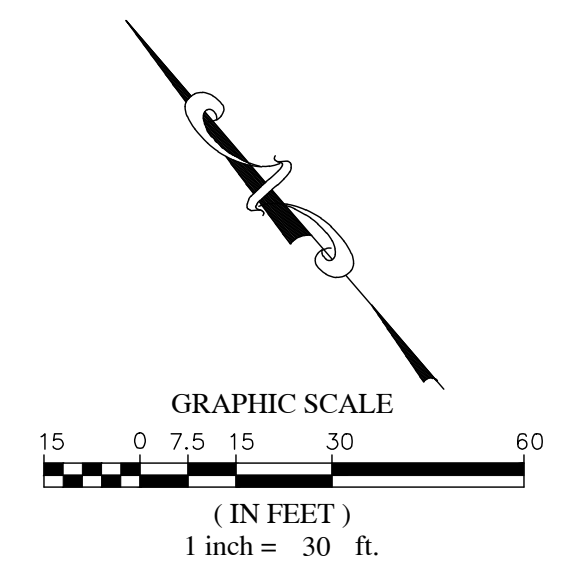
19-0120_S

Sheet #

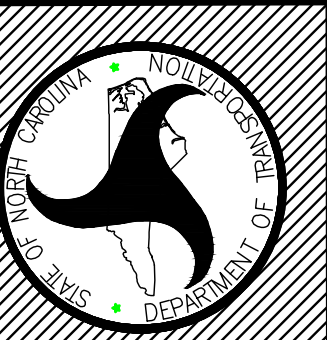
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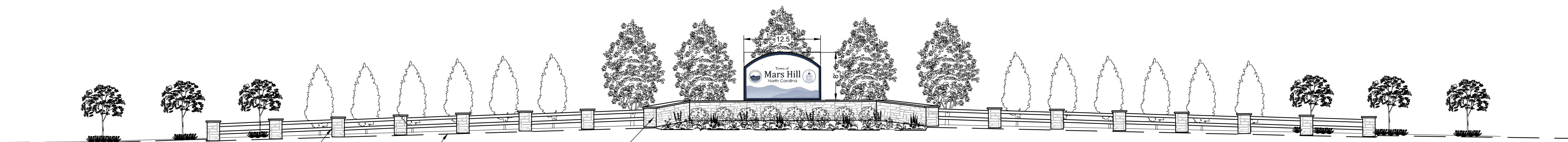
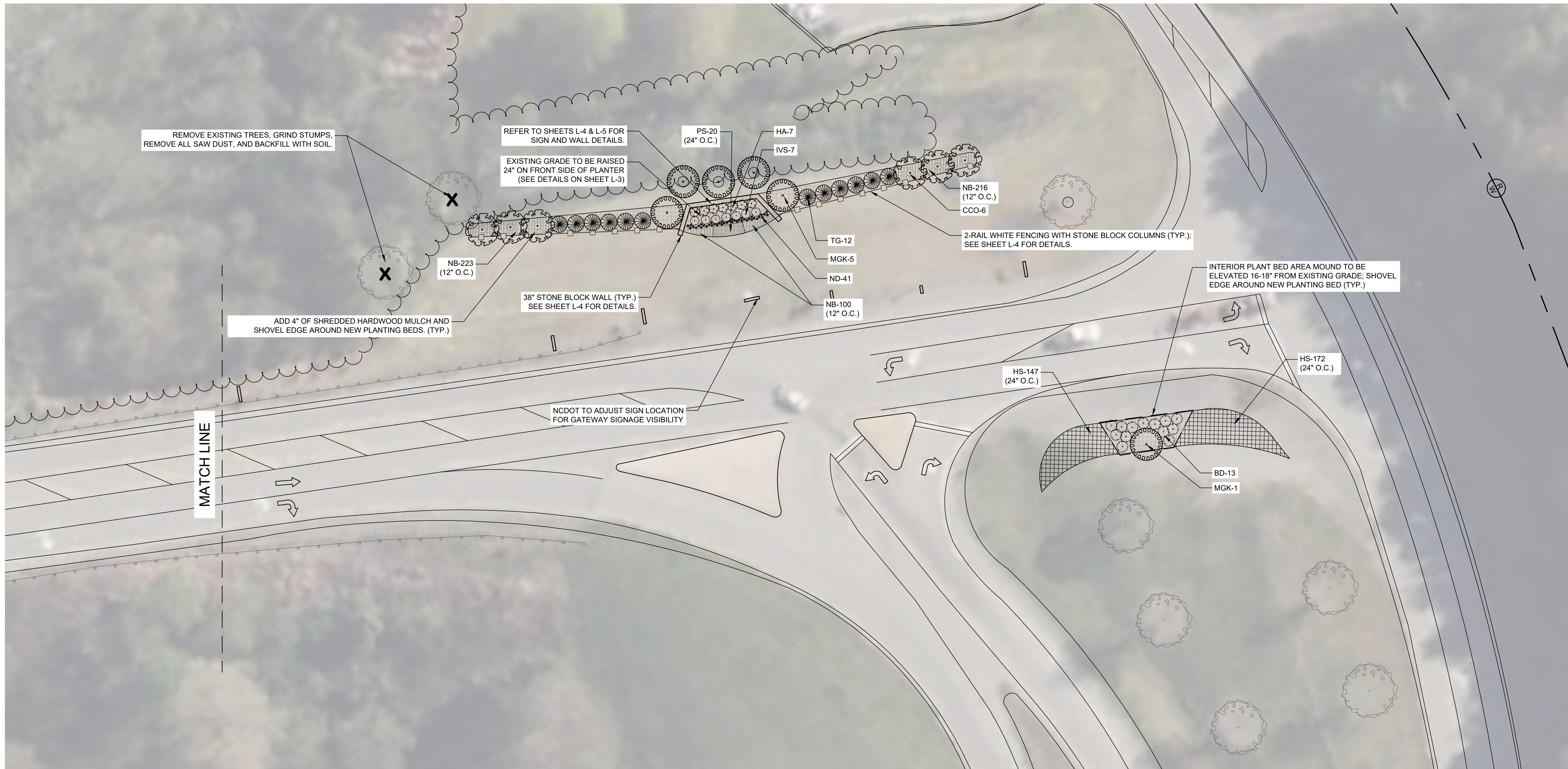


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MARS HILL GATEWAY ENHANCEMENTS
 DIVISION 13 ENHANCEMENTS

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DETAILS ON SHEET L-3
FOR BLOCK WALLS, COLUMNS, FENCE, ETC.
AND SHEET L-4 FOR THE SIGN DESIGN

PLANTING SCHEDULE FOR L-15

TREES								
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
CERCIS CANADENSIS 'OKLAHOMA'	OKLAHOMA REDBUD	CCO	6	3/4" CAL	B&B	5' MIN		
MAGNOLIA GRANDIFLORA 'KAY PARRIS'	KAY PARRIS MAGNOLIA	MGK	6	3/4" CAL	B&B	5' MIN	X	
THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	TG	12	3/4" CAL	B&B	5' MIN	X	

SHRUBS								
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
BUDDLEJA DAVIDII 'PUGSTER BLUE'	PUGSTER BLUE BUTTERFLY BUSH	BD	13		#3 CONT	24"		
HYDRANGEA ARBORESCENS 'MATHILDA GUTG'	MATHILDA GUTGES HYDRANGEA	HA	7		#3 CONT	24"		
ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	IVS	7		#3 CONT	18"		
NANDINA DOMESTICA 'FLIRT'	FLIRT NANDINA	ND	41		#3 CONT	18"	X	

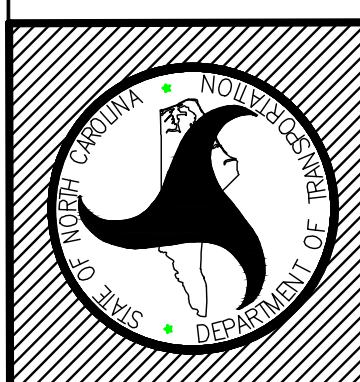
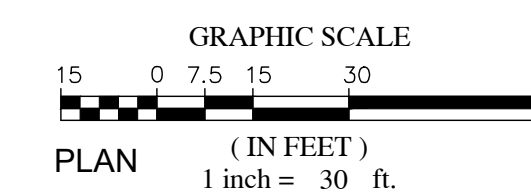
PERENNIALS								
BOTANICAL NAME	COMMON NAME	KEY	QTY.	SIZE	CONT.	HT	EVERGREEN	COMMENTS
NARCISSUS 'BRITISH GAMBLE'	BRITISH GAMBLE DAFFODIL	NB	539	BULB				12" O.C.
HEMEROCALLIS 'AZTEC GOLD'	AZTEC GOLD DAYLILY	HG	319	3 FAN	#1 CONT			2' O.C.
PHLOX SUBULATA	CREeping PHLOX	PS	20		QT			2' O.C.

OTHER QUANTITIES FOR L-15

MATERIAL/LABOR	QUANTITY
AREA TO BE GRADED	+/- 3,800 SF

NOTE: GRADE AS NECESSARY IN AND AROUND PLANTING BEDS AND PLANTING RINGS. TREE & VEGETATION REMOVAL INCLUDES STUMP GRINDING, REMOVING SAWDUST, AND BACKFILLING WITH SOIL TO MEET EXISTING GRADE.

NOTE: "TOWN OF MARS HILL NORTH CAROLINA" SIGN, POSTS, AND ALL HARDWARE TO BE PROVIDED, ERECTED, AND INSTALLED BY THE TOWN OF MARS HILL.



MARS HILL GATEWAY ENHANCEMENTS
DIVISION 13 ENHANCEMENTS

Plans Drawn By:	C. KENNEDY
Scale	AS NOTED
Date	06/12/24
Sheet Description	LANDSCAPE PLAN
Project #	19-0120
File Name	19-0120_S
Sheet #	L-15